Manual

TTX 300 Offline
Cobra Offline

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Setup

General notes

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The publisher cannot warrant the accuracy of the content of this manual.

Attention : The following sign is used to mark up - that this is an important point !

Note: Please follow the notes shown in this text - it will help to cover all situations and keep your engine working. .

Overview

The TTX-300 is a feature rich printer offering a wide variety of choices for text, barcode, and graphic print. The printer combines quality thermal transfer print with ease of operation in a space saving package.

To maintain proper performance, use original parts and accessories. The use of parts not in compliance with our exacting standards may result in unnecessary problems.

The housing of the unit may only be opened by authorised personnel. Loading of foil, tags, and labels should be carried out only by trained personnel

Warning: Do not operate the printer with the cover open. Fingers, hair, clothes, jewellery, etc. may be caught in the printer mechanism.

If the printer will not be used for an extended period of time, relieve pressure on the printhead by opening the locking lever.

Wait at least 10 seconds after switching the unit "OFF" before switching it back "ON".

Wait at least 60 seconds after switching the printer "OFF" before removing or inserting PLUG IN CARDS.

Wait at least 3 minutes after switching the printer "OFF" before disconnecting the printhead.

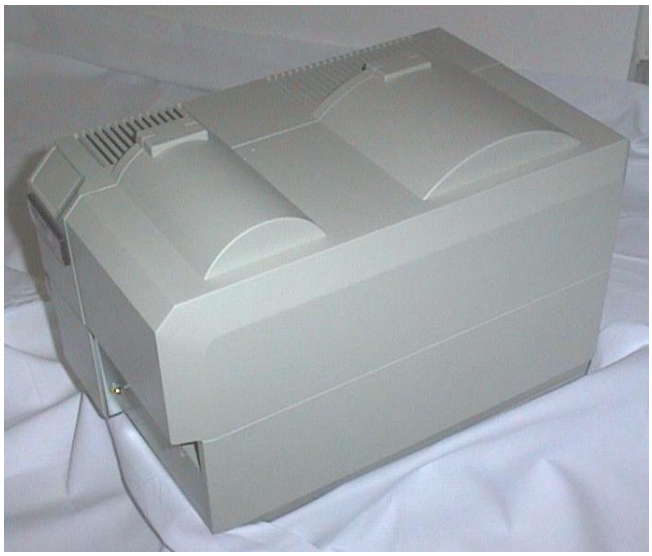
Unpacking the printer

Exercise care when unpacking the printer.

1. Remove top foam packing.

2. Take printer out of cardboard box.

Always carry the printer by the base plate. Never use the front cover, reel holder, or printhead as carrying handles.



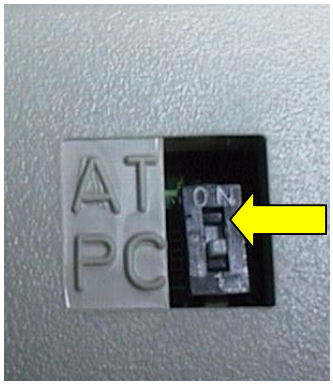
Setting and connecting of printer

Warning: Unplug the printer before checking/changing voltage or fuses!

Check the main voltage setting and fuses. The main voltage setting is visible through a window in the fuse carrier. If necessary, change the main voltage by removing and turning the insert. The fuses can be replaced by removing the fuse carrier.

Keyboard

The keyboard has to be connected at the round connector at the side of the lower cover of the printer. The keyboard has to be switched into 'XT' mode (there is a switch at the rear side of the unit)



Serial interface connection

Caution: Before connecting or disconnecting the interface cable, switch "OFF" all devices.

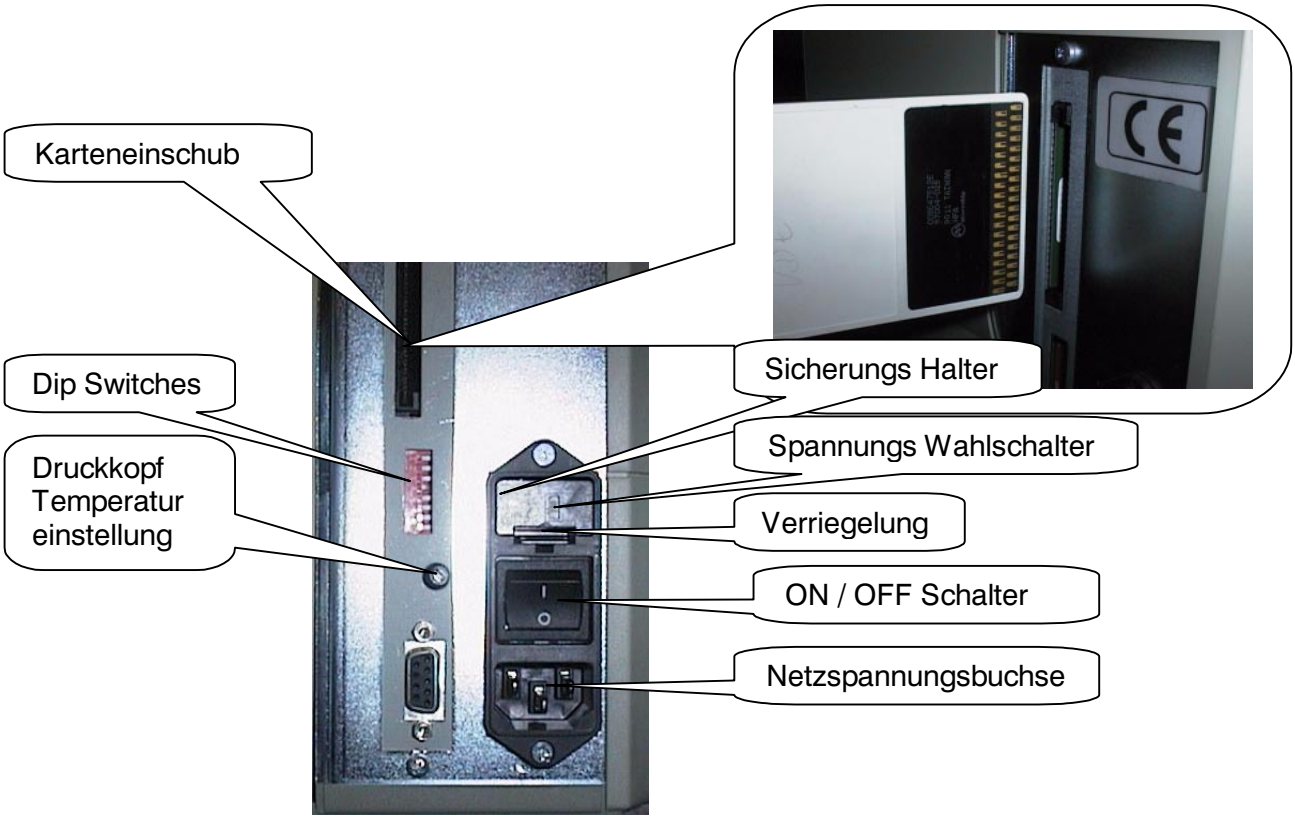
A serial interface V.24/DB 25 (RS232) is the standard printer connection.

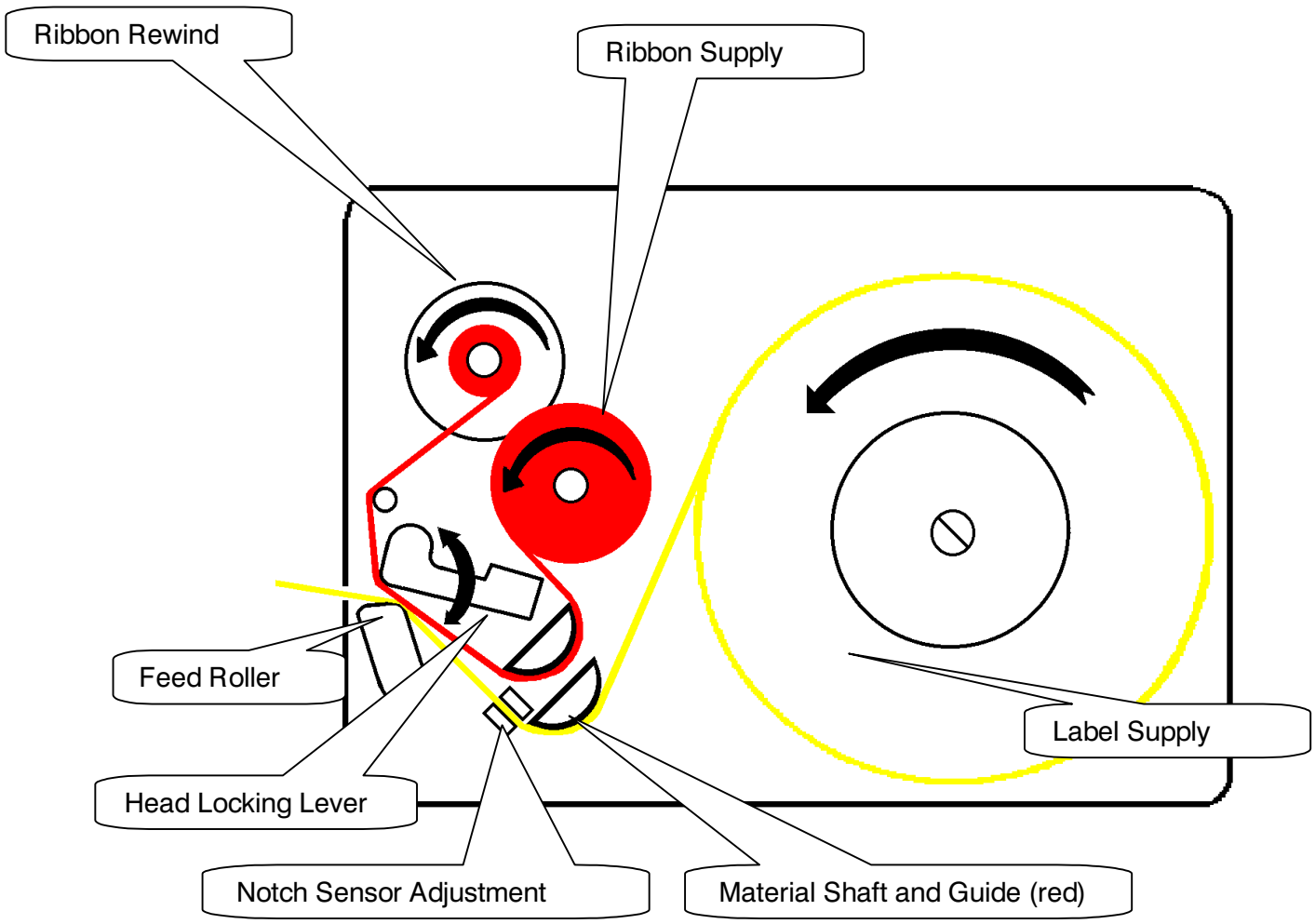
Card slot

This unit is designed for use with optional font and logo cards.

Cards with maximum of 128 KB may be used.

Caution: Turn the printer "OFF" and wait at least 60 seconds before inserting and removing cards. Use only approved cards. Take care of the card direction (move in).





Inserting the thermal transfer ribbon

- Slip a ribbon onto the supply shaft on the right-hand side so that it unwinds in a counter clockwise direction.
- Attach an empty cardboard core onto the rewind shaft on the left-hand side.
- Unlock the head by raising the head locking lever.
- Thread ribbon as shown. Guide ribbon around rollers and fasten self adhesive ribbon end counter clockwise at the cardboard core. Tighten the ribbon by turning the ribbon rewind in a counter clockwise direction.

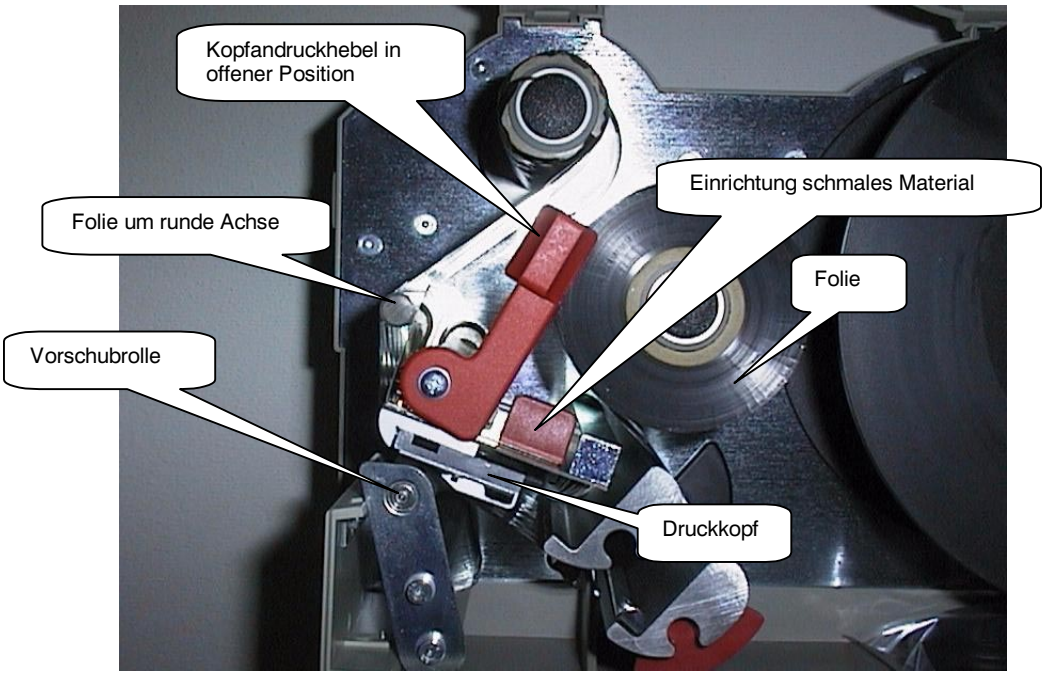
Inserting the label material

- Hang label material in label supply reel so that it unwinds in a counter clockwise direction.
- Adjust the red material guide to full width.
- Thread the material as shown. Thread past the material guide (red), through the gap sensor and between printhead and feed roller.
- Set the red material guide to the correct width

.

- Position Narrow Web Adjustment according to material width
- Close the head locking lever.
- Close the cover.
- Switch "ON" printer - the Green/Power LED glows.
- Press “FEED” to feed material until the ribbon is free of wrinkles. Punched material feeds one label length each time the “FEED” is pressed. Continuos material is fed as long as ”FEED” is operated. When using punched or Imark material, adjust the sensor by moving the metal tab on the Material Shaft until the tickets feed correctly.

Warning: When the cover is open, fingers, hair, clothing, jewellery, etc. may be caught by the printing mechanism.

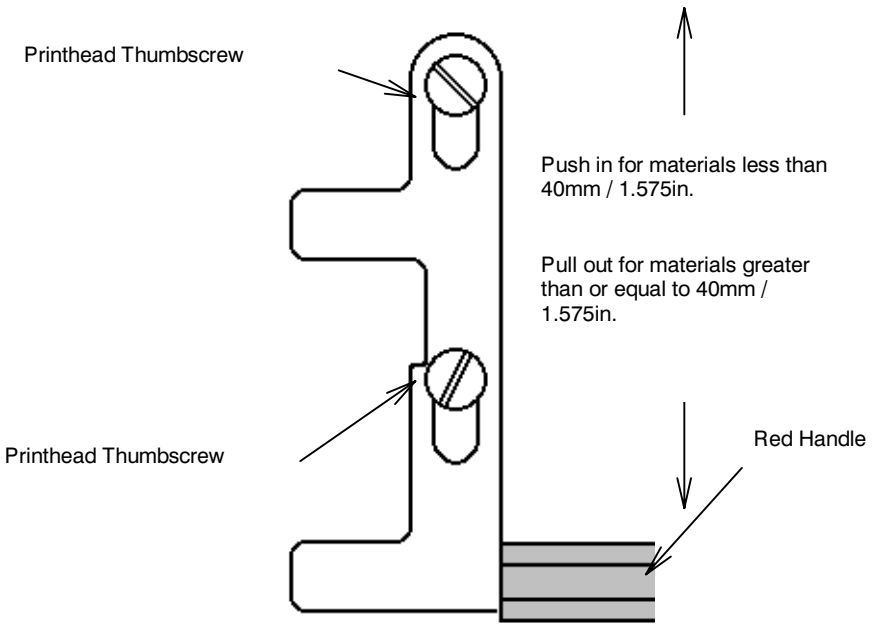


Narrow material web adjustment

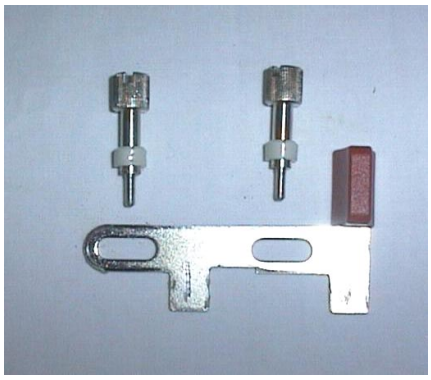
- Push the Narrow Material Web adjustment IN for narrow material, less than 40mm / 1.575in.

- Pull the Narrow Material Web adjustment OUT for wide material, greater than or equal to 40mm / 1.575in.

Note: **Do not adjust the printhead thumbscrews.**


Printhead Thumbscrew
Push in for materials less than 40mm / 1.575in.
Pull out for materials greater than or equal to 40mm / 1.575in.
Printhead Thumbscrew
Red Handle

Narrow Material Web Adjustment - Top View



Removal of material and ribbon

- Material and ribbon can be removed after opening the head locking lever.

Introduction

Printer operation is designed for a keyboard in the "XT" mode of operation.

The printer-integrated editors - Multi Vario Text (MVT 111) and Easy Plug - makes available all functions required for design Generation (label layout) in several menus.

Via a command key, optional overlay of / masking out from the respective actual display without having to quit the program is possible regarding program sections and input fields of the main menu.

The printer is equally suitable for operation as an OFFLINE and ONLINE unit.

> The printer is an independent unit in the **OFFLINE mode**. The print data generated via keyboard and printer are processed and managed on the printer. Data can also be loaded from a floppy disk.
>
> In the **ONLINE mode**, print data are transmitted from the computer. Computer and printer are connected via the interface cable. Data and commands will be sent via Easy Plug emulation.

This feature also offers the possibility to process additional data during the current printing process.

For the relevant information on use of printer in the ONLINE mode and its selection via Easy Plug commands is made to the programming manual.

A further printer can be selected from the printer.

This is possible with the printers with Easy Plug emulation. The different printing widths have to be taken into account (see also description of menu: PRINT).

Except for a few restrictions, processing of data generated by means of the MVTIII software program is possible.

Programming Level

Main menu with six sub menus :

DESIGN, PRINT, FLOPPY, MISC, PARA, and PASSWD

The following i performed on this level : generation of masks (label layouts), preparation of label printing series (jobs), management of data and floppy disks, printer adjustments, control functions.

The current position within the root menu is marked by the flashing cursor.

See also description of the individual menus.

Printer Operating Level

The following operator actions are possible on this level :

Active of passive connection of printer, feed without print as well as display overlay by status and error messages.

See also description on next pages.

Operation

Adjustment of DIP switches

Above the interface connection are DIP switches. This switches are not used in the OFFLINE unit ! The adjustments and parameter settings are done via display and keyboard.

Adjustment of print head temperature

The printhead temperature can be adjusted by turning the knob located below the interface connection.

Turning clockwise raises the temperature, turning counter clockwise lowers it.

Print appearance related to temperature setting

Correct temperature:	Print is sharp and crisp
Low temperature:	Faint print
High temperature:	Smeared print, characters too bold
Extremely high temperature:	Ink particles evaporate, causing faint print. Printhead is overheated. Damage to printhead is possible.

Start as OFFLINE Unit

Study chapter "introduction" and the basic description of print mode of the unit contained therein prior to execution of the steps described below.

The use as OFFLINE unit is prepared by the following steps:

Connection of printer	Display:	**DESIGN PRINT FLOPPY**

The individual menu items are selected by keys.

Cursor keys	<← → >	for horizontal movement
and	<↑ ↓ >	for vertical movement

The printer must be switched into the active mode for label printout:

Display: READY NO JOB

<F9> Key	Display:	NOT READY or READY NO JOB

Display: NOT READY

<F1> Key	Display:	NOT READY or READY NO JOB

READY NO JOB — Printer ready for operation = active, but there are no data waiting for processing presently

NOT READY — Printer not ready for Operation = passive

Subsequently return to programming level (F9 key). Printer is fully operative now!

Start as ONLINE Unit

Study chapter "introduction" and the basic description of the print mode of the unit contained therein prior to execution of the steps described below.

The use as ONLINE unit is prepared by the following steps:

Connection of printer	Display:	DESIGN	PRINT	FLOPPY

Selection of interface

The selected interface is RS 232 (serial interface).

<F9>key	switch over to printer operating level

Display:	NOT READY or READY NO JOB

READY NO JOB — Printer ready for operation, but there are no data waiting for processing presently

NOT READY — Printer not ready for operation

<F1>key	Switch over from:	READY NO JOB to	NOT READY

Connection to computer via interface

Printer to be connected to computer in the passive mode only.

Subsequently <F1>key Display:	READY NO JOB

Printer ready for data receipt via selected interface.

Insertion or removal of Floppy Disk

The floppy disk drive provided for on the front side of the printer is suitable for the following floppy disk types:

3.5 Inches, 1.44 MB ; High Density

Floppy disks are to be inserted after printer connection and removed before disconnection only to avoid any possible data loss.

Insert floppy disk with driving side (round metal area) down.

For floppy disk removal depress button in front of insertion opening and remove floppy.

Do not remove floppy disc while amber control lamp is on!

Special Functions

These functions are available on printer operating level irrespective of the active or passive mode of printer (switch over between printer operating level and programming level by F9).

No further options are available after acknowledgement of your selection by <ENTER >.

The function is performed without any further consultation.

<CTRL+C>

Cancel actual first print job

<CTRL+A>

Clear all print jobs

Attention: All print jobs are cleared without inquiry!

<CTRL+P>

Line printer mode

Printout of a list-of those Easy-Plug commands, which would result in a "normal" printout of user data on adjustment of Easy Plug emulation, is possible.

By entry of <F1 >key back to Easy Plug mode

<ALT+CTRL+DEL>

Re start of printer and call of program version

Attention: Print data are cancelled !

This function is available at any time!

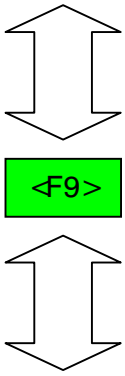
The program version is called for approx. one second after key operation.

Main Menu

Operating levels:

<F1> auxiliary texts and explanations

PRINT | DESIGN | FLOPPY | MISC | PARA | PASSWD



Printing – Operating level :

AKTIV mode

*AKTIV NO JOB

Printer ready to receive data from menu : PRINT or via

<F1>

PASSIV mode

*PASSIV

printer not ready for printing or can not receive any

possible displays :

*READY DATACONVERT

print format is being set up

*RUN REST .....

label quantity still to be printed

*STOP REST .....

stop via keyboard

*WAIT REST .....

stop via EASY PLUG command

(*) ERR .....

error messages

available options :

<F2> *NOT READY Feeding

feed without print as long as key is being depressed or with punched material up to the next length position

<F3>

The main menu is subdivided into the six following menus:

MENU: DESIGN

Mask are managed, i.e. generated, modified, copied, and renamed in the DESIGN menu.

The term "mask" represents the layout of all characters and graphic elements as well as information specific to the print.

The imprint on a document (the material to be printed) is performed by means of a mask placed over the label, and in accordance with the information specific to the print.

All processing steps required for mask layout are performed in the menu: DESIGN.

Mask specification and its processing on the printer.

Layout of fonts, barcodes, graphic elements, and their positioning in the mask.

Definition of arithmetic operations and data linkage.

This menu also provides for copying, deletion, and renaming of masks apart from the Generation and modification of already existing masks.
Listing of all mask names existing on a floppy disk is possible in the menu: FLC)PPY-

MENU: PRINT

All processing steps required for document printout are performed on the menu level 'PRINT'.

Input of variable data into the masks generated in the menu: DESIGN.

Generation of print jobs for the printer: What and what quantity is to be printed on which printer ?

Identification number management Identification numbers are key designations under which data records are stored or managed in a identification number file.

Listing of all identification number designations existing on the floppy disk is possible in the menu: FLOPPY.

MENU: FLOPPY

All necessary functions for data handling are available due to the printer concept, i.e. its design as an independent unit.

Printout of all mask names and identification numbers existing on the floppy disk.

Copying of files (from one floppy disk onto the other).

Formatting of floppy disks.

MENU: MISC

This menu includes control and other functions for the printer in relation to floppy disk drive, main memory, card slid-in module, and sensor as well as a check printout option via printer adjustments.

MENU: PARA

Adjustments of the printer system and Interface are made in this menu.

MENU: PASSWD

Protection of printer from unauthorised use is possible by means of a password system.

Selection of menu items

Selection

Select desired menu item in accordance with root menu by
Cursor keys <← → >for horizontal movement and <↑ ↓ >for vertical movement.
For root menus see end of each chapter.

Adjustment

Menu items with defined options,

By <PGUP>=forward; by <PGDN>=backward

One of the optional adjustments is superimposed by each key operation (selection also by keyboard input).

Menu items with freely selectable inputs (text and dimensions):

Inputs are made via the keyboard

1

If the possible setting ranges are exceeded, and the input is reset to the respective limiting value.

Quit Menu

By <ENTER >or Cursor <↑ ↓>

Both forward and backward selection is possible with independent menu items.

Items of a series of contiguous menu items can be quit at the and of the series or after the logic close of series only. For detailed information see individual chapters.

NOTE: The display advances by one step by short jogging of enter and cursor keys. Their continuous depression results in an accelerated change of display up to the last item of a series.

Input and select functions

Editing within the individual menu items is performed in two different ways.

Menu items with preset options

On selection, the default value appears in the display. These adjustments can be selected by the keys <PgUp, PgDn >or entered via the keyboard.

Menu items with freely definable adjustments

Freely definable adjustments (e.g. dimensions) are entered via the keyboard. Selection of default values is made by the keys <PgUp, PgDn >.

Editing Functions

The editing function is available in all menus. Data input starts at the position of the flashing cursor.

<INS>	Insertion of character at cursor position
<DEL>	Deletion of character at cursor position
<END >	Cursor moves behind last character
<HOME>	Cursor moves to beginning of field
<CTRL +ESC >	Data input cancelled
<CTRL +SCKSP >	Original data are recalled into the display
<PgUp, PgDn >	Any preset adjustments - if provided for in the menu item - can be selected. Selection of the default values is possible with freely definable adjustments.
<ESC>	Return to the next logic end of a series of menu items, or to the main menu (see also functions in the menus. DESIGN and PRINT)

If a user character is entered into the input field as first character, the former text in the line is automatically deleted.

If a cursor control character <↑↓>is entered as first character, the text is saved for editing. All characters are available for entry.

The program will not accept the entry of any invalid programming characters.

Special notes on data input

The following special notes are to be observed regarding ihe representation of user data by a 20 digit display:

Special characters not contained in the keyboard can be activated by means of the key <ALT >and the hexadecimal code (standard character set).

Example

@ =ALT +6, 4 (numeric keyboard)

If an entered character is displayed by <» >, this means that the respective character cannot be represented in the display, but is correctly represented in the printout (e.g. 1/2 =171 hex).'

With specific characters, such as:

§ =021 hex, \ =092hex, ' =096hex, ~=126hex, • =249hex

one character each can be represented per input line only.

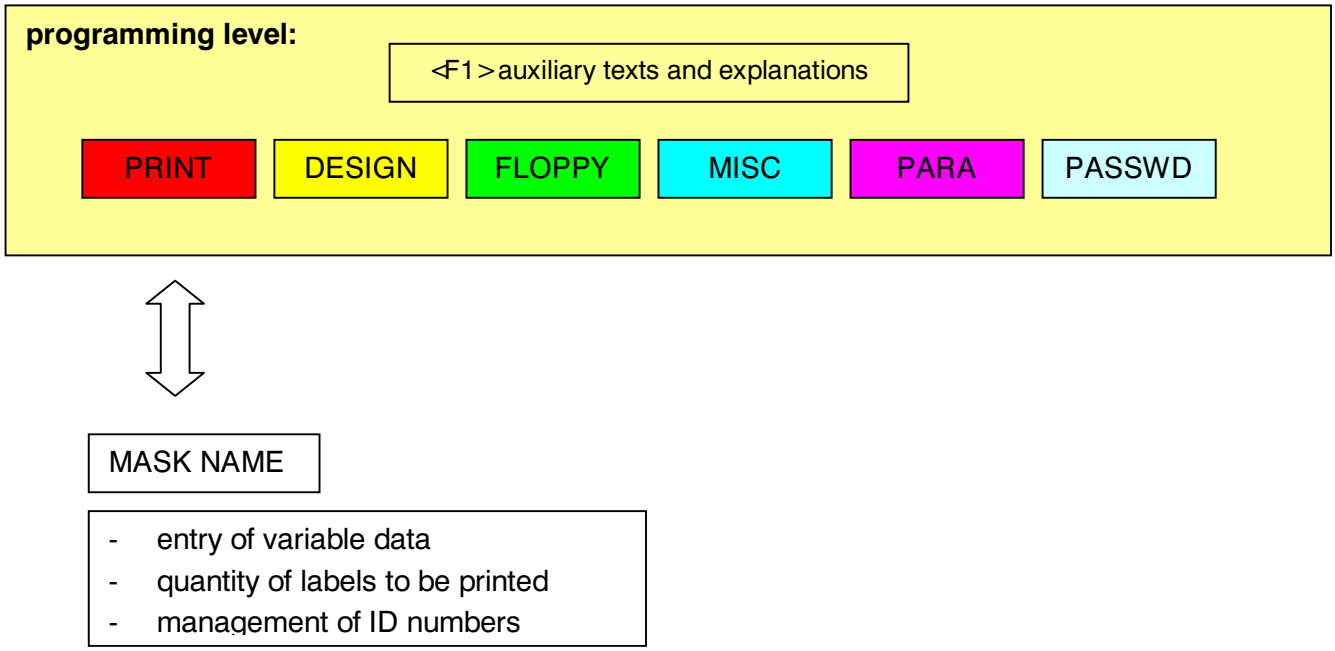
On input of an additional special character, representation of the preceding character in the display is overwritten by the character entered last.

Irrespective of the number of characters entered they are correctly represented in the printout.

Example

Input data	•§1
Display	§§I
Printout	•§1

Menu Print



Document printout

All processing steps required for document printout are performed in the menu: PRINT

Input of variable user data if this is provided for in the mask called.

All processing steps at / regarding ident numbers, i.e. their call, modification, storage, deletion, and printout.

The printer design permits the use of the main menu parallel to the printing process. Preparation of additional print series, Generation of masks as well as performance of other steps is therefore possible during the printing process.

This does, however, not apply to the following menu functions:

PASSWD, FLOPPY, and MISC.

Functions in the Menu: PRINT

Apart from the editing functions applicable to all menus, the following additional functions are available:

Key	Function
<F2>	Start of print job
<F5>	Storage of ident numbers
<F6>	Deletion of ident numbers
<F7>	Reading-in of ident numbers
<F10>	From the current field directly to the menu item: QUANTITY respectively back to the menu item from which the function was started
<F11>	Display of checksum status: For some seconds, the message "Checksum enabled" or "Checksum disabled" appears.
<CTRL+F11>	Enable/Disable the checksum calculation – for some seconds "Checksum enabled" or "Checksum disabled".
<ESC>	The display returns to the main menu if this key is depressed after acknowledgement of the mask name selected or entry of variable data up to the menu item: QUANTITY

Storing of variable data

Key	Function
<F3>	Variable data can be stored after they are keyed in, together with the mask. The mask will not be altered by this operation.
<F4>	The last keyed in and stored with <F3 >variable data can be recalled.

By using this functions it is possible to fix variable data independent of a possible "reset" or "switching on" operation in order to save a new entry of the variable data.

Without using this functions, the mask is in a "normal', condition after its selection, i. e. the fields for the entry of variable data are set to "0" and do appear by the flashing cursor and the underlines marking the field length.

Subsequent operation can be started from printer operating level only (switch over and return by <F9>

Key	Function
<F1>	The printing process can be stopped and restarted by again depressing.
<STRG+C>	Cancel actual / first print job
<STRG+A>	Clear all print jobs. Attention.- All print jobs are cleared without further inquiry !

Data Input

Select menu: PRINT

Enter mask name or select by <PgUp, PgDn >and confirm
selection by <ENTER >

At mask with ident field(s) and already stored data in the corresponding ident file after calling in of the mask in the display appears : IDENT FILES PRESENT

This is a note, that ident numbers are already existing in the ID file. This message has to be confirmed by <ENTER >.

With masks containing fields into which entries are still to be made for printout, the field names appear at the left screen rim and their input fields in accordance with the defined field length right of them.

Data input starts at the position of the flashing cursor.

Scroll line length by cursor key <← →>

If the mask contains several input fields, they are selected

By cursor keys <↑ ↓>and <ENTER >

Quantity Specification

The label quantity to be printed can be specified in the menu item:

QUANTITY (min. 1, max. 65.000).

QUANTITY: X X X X X

Start of Print Series

Start print series after entry of the quantity by keying in <ENTER >or cursor <⇩>. The cursor returns to the root menu.

If quantity specification is already available the print series can be started immediately with <F2 >and the cursors remains in the presently selected field. Subsequently all other fields of the mask can be selected arbitrary.

The menus: DESIGN, PRINT, and PARA are available for the performance of additional processing steps even during the printing process.

Note:

A print series once started can not be modified anymore.
Print series of the queue can be deleted single wise during printout or completely any time.

Selection of Slave Printer

Another printer for the printout of print series can be selected from the printer.

This linkage is possible with all printers which are equipped with Easy Plug emulation.

The different printing widths are to be observed. A linkage includes max. two printers.

Selection is made via the serial interface. An identical specification of both interfaces is to be warranted via Parameter adjustments.

If both printers are linked, the printer, on which the print series is to be printed is to be defined.

Definition of the print series on the-second printer is made in the field for quantity specification. After input of the number of labels to be printed, the identification number - separated by a blank space - is entered for the second printer; the print job is started as usual by. The print series is printed on the source printer if no identification number is entered, or input of a number different from "1, 2 or 3" is made.

For Identification number see: Selection of printer

Example

Printout of a print series of 2000 labels on the slave printer class 1, and of an additional print series of 500 labels on the source printer.

QUANTITY: 2000 1

QUANTITY: 500

Ident Number Management

All processing steps at / regarding ident numbers are performed in the menu: PRINT

Input and storage of new ident numbers.

Call, modification, deletion, and printout of existing ident numbers.

When working with ident numbers please regard, that the ident file and the mask are related and alterations of the mask will also alter the ID file.
This operation is indicated by the message: MODIFY IDENT FILES (meanwhile this message is indicated no other operations are possible).

If there are already stored data in the ID file it is not possible to:

insert another ident field into the mask

change an ident field into an other field type

Input of Ident Number Contents (Data Records)

After calling the mask, on the basis of which the new ident numbers are to be generated, the field names - if existing - appear left in the display; the input field appears right of them. The flashing cursor is at the first field position.
The editing functions - programming level/main menu - are available for the inputs, and, in addition, the functions of the print menu for management.

Field name	Input field (according to defined field length)

QUANTITY:	X X X X X

The quantity specification belonging to the data record is also stored on data input (min. 1, max. 65,000); it is the reference quantity in each ident number printout. Any change of the quantity specification is to be considered as user data modification.

Data input is directly stored by <F5 >; the mask is ready for input of additional addresses.
The number of ident numbers is defined by the storage capacity of the data carrier (floppy disk).

Storage, Modification, Deletion, or Printout of Ident Numbers

Condition for the processing of 10 numbers and their contents is reading-in of the data record of the respective ID number by <F7 >. If the ID number is not found, depress optional key and again operate <F7 >.

Ident number input in ascending order is possible by repeated depression of <F7 >.

The mask is ready for input of additional data after termination of one step.

By depressing <F10 >the menu item: QUANTITY can be selected directly respectively left directly back to the menu item from which the function was started and the next ident number can be read-in.

Storage of ident numbers <F5 >

The data input is directly stored by <F5 >; the mask is ready for input of additional addresses.

The following consultation is displayed if an ident number already exists:

WRT	X X X X X	Y/N

X X X X X represents the ID number, under which the user data have been stored last.

Input <Y>:	The existing ident number is overwritten

Input <N>:	No storage is made; the data entered last are preserved for further processing

Modification of ident numbers

It is possible to modify the data of the entered ident number and to again store them by <F5 >.

Identical ident numbers cannot be stored.

Deletion of ident number <F6>

The ident numbers read in by <F7 >can be deleted from the file by <F6 >

The following consultation appears prior to deletion:

DEL	XXXXX	Y/N

X X X X X represents the ID number, under which the user data were last.

Input <Y>:	The displayed ident number is deleted

Input <N >:	The process is terminated abnormally

Ident numbers deleted by <Y >can be recovered by re-entry only.

Printout of ident number <F2 >

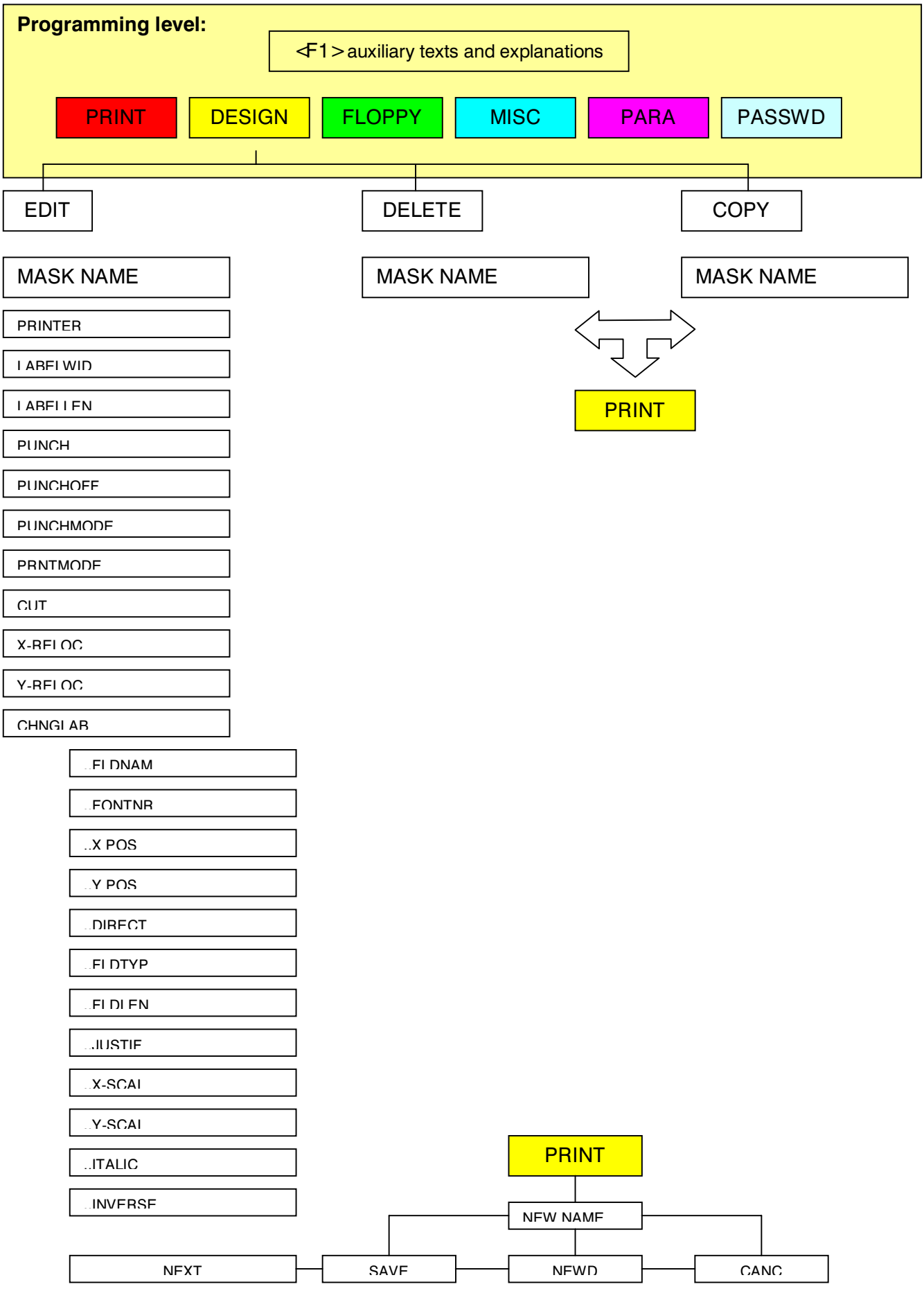
The ident number entered by <F7 >can be printed via <F2 >.

User data - including quantity specification, which forms part of user data with ident numbers - can be optionally modified prior to printout and also stored by <F5 >.

By depressing <F10 >the menu item: QUANTITY can be selected directly respectively left directly back to the menu item from which the function was started and the next ident number can be read-in.

Without storage, the user data are preserved in the condition stored last.

Menu Design


Programming level:
<F1> auxiliary texts and explanations
PRINT
DESIGN
FLOPPY
MISC
PARA
PASSWD
EDIT
DELETE
COPY
MASK NAME
MASK NAME
MASK NAME
PRINTER
LABELWID
LABELLEN
PUNCH
PUNCHOFF
PUNCHMODE
PRNTMODE
CUT
X-RELOC
Y-RELOC
CHNGLAB
..FLDNAM
..FONTNR
..X POS
..Y POS
..DIRECT
..FLDTYP
..FLDLEN
..JUSTIF
..X-SCAL
..Y-SCAL
..ITALIC
..INVERSE
PRINT
PRINT
NEW NAME
NEXT
SAVE
NEWD
CANC

Generation and Modification of Masks

The individual processing steps are selected from this menu.

The term "mask" represents the layout of all characters, graphic elements, and information specific to the print.

The different mask layout options are described in the following chapters and, in addition, illustrated by graphic representations.

Masks can be altered after their Generation arbitrary. At masks with ident numbers please regard, that the ident file and the mask are related and alterations of the mask will also alter the contents of the ID file.

This operation is indicated by the message: MODIFY IDENT FILES
(meanwhile this message is indicated no other operations are possible).

If there are already stored data in the ID file it is not possible to:

insert another ident field into the mask

change an ident field into an other field type

The mask generation/modification procedure is subdivided into two essential parts:

Specific Information on the Print Series:

Mask name; Length, width, and type of material (punched or endless)-, type of printer the mask will be generated for; Offset on punch recognition; Change label at the beginning/end of a print series.

Mask Layout

All texts, barcodes, lines, rectangles, and logos are placed within the printing area by means of fields. The position of a field is the left-hand lower corner of the field (zero-point) in relation to the left-hand, lower corner of the printing area. On rotation of the field, the zero-point remains constant while the field rotates.

With a field, data are processed as constant or variable text, included into arithmetic operations, or linked with data of other fields. For this purpose two different field types are used (training examples are, in addition, included in the description of the individual field types).

Up to 1 00 fields of a length of max. 70 characters each can be stored under a mask.

With a field, data are processed as constant or variable text, included into arithmetic operations, or linked with data of other fields. This will be operated by different field types.

Each field is identified by a number, which is also displayed within these menu items.

Up to 1 00 fields of a length of max. 70 characters each can be stored under a mask.

Menu options regarding a mask include the following menu items:

PRINTER = printer selection through

INVERSE = inverse print. This menu can only be quit via the menu items: SAVE, NEWD, or CANC (selection of these items by <ESC >.

Field-Editing Functions

First field — The first field of a mask is preset in the menu.

NEXT — Edit New Field
A new field can be generated by selection of the menu item: NEXT following acknowledgement by <ENTER >.

All subsequent functions can be selected only starting out from a field-specific menu item (field name =FLDNAM up to INVERSE =Negative print).

Key	Function
<CTRL+INS>	Insert Field – The new field is inserted after the actual one. In this way numbering of subsequent fields is shifted by the number of the inserted fields.
<CTRL +DEL >	Delete Field – For description see "insert Field". The selected field is deleted.
<CTRL+HOME>	Select first field of the mask.
<CTRL+END>	Select last field of the mask. A new field is inserted after the last field.
<CTRL +BILD ↑>	Select next field of the mask.
<CTRL +BILD ↓>	Select previous field of the mask.
<ESC>	Back to menu items: SAVE, NEWD or CANC
<F11>	Enable/Disable the checksum calculation – for some seconds "Checksum enabled" or "Checksum disabled".
<CTRL+F11>	The display returns to the main menu if this key is depressed after acknowledgement of the mask name selected or entry of variable data up to the menu item: QUANTITY

Storage masks

Masks are stored on floppy disks after selection of the corresponding function.
If no floppy disk is inserted, a mask can be managed by the printer until reset or disconnection of unit.
Masks are stored by their mask name (max. eight digits) and the extension: LBL.

<MASKNAME . LBL >

The extension is automatically added to the mask name.

If mask data have been modified regarding menu items: PRINTER =printer selection through INVERSE =inverse print, quitting of the sub menu: EDIT is only possible via the three functions described below:

Functions:

Selection of functions by <ESC >, starting out from menu items: PRINTER - INVERSE

SAVE Storage of mask contents under same name

All inputs and / or modifications are stored under the existing mask title. The display returns to the main menu. A require is superimposed and has to be confirmed by:

WRT	**(name of the mask)**	**Y/N:**
Y:	Modification will be stored	
N:	Modifications will be cancelled, the mask is preserved in its last saved condition.	

The display returns to the main menu

NEWD Storage of mask contents under new name.

Following a new mask name is entered and confirmed with <ENTER >. The source mask is preserved in its last saved condition independent of Y/N. A require is superimposed and has to be confirmed by:

WRT	(new name of the mask)	Y/N
Y:	Modification will be stored under the new name	
N:	Modifications will be cancelled The display returns to the main menu.	

Already existing file names cannot be overwritten (the message superimposed is acknowledged by <ENTER ».

CANC Cancellation of modifications

Already performed modifications are cancelled; the mask is preserved in its last saved condition. The display returns to the main menu.

Mask Names MASKNAME

Enter mask title (max. eight digits) for mask Generation or modification and go ahead by <ENTER >or Cursor <↓>

The mask names refer to DOS-specific files, in which all information belonging to a mask is managed.

The extension of these files is <MASKNAME . LBL >without exception. The mask name without extension is specified on Generation or calling of masks.

A summary of all masks and logos stored on a floppy disk can be called in the form of a printout in the menu: FLOPPY under menu item: PRNTDIR.

Selection

Max. eight alphanumeric characters for mask name with mask Generation , Display: NEW DESIGN, acknowledge by <ENTER >

In addition, an acoustic signal is emitted for this process.

Selection of existing masks on the floppy disk is possible by <PgUp, PgDn >or manual entry.

After selection of the next menu item: LABELWID quitting of the menu is only possible via the following menu items:

SAVE	Saving of data under the mask name selected.

NEWD Saving of data under new mask name.

CANC Cancellation of any possible modifications; the mask is preserved in its last saved condition.

Selection of printer PRINTER

Select for which printer the mask is intended.

In this way the various features of the different usable printers can be regard just when generating a mask(length, width of label; print series mode; options .....).

After selection of a printer only entries corresponding to the features of the selected printer are possible.

Performing mask on different printers then selected, please regard the compatibility of the features.

Selection by <PgUp, PgDn >or keyboard input:

Printer class	1	TTX 7X6 FOX 63X0 S 7X/2
Printer class	2	TTX 300,TTX 480 TTX 7x9 COBRA, FOX 65x0, MUSTANG 900 S 30, S 7X/4
Printer class	3	TTX 207 +600 +600 +807 MUSTANG 1000 +2000, EAGLE, DA CAPO S 50, S 60, S 80

Label width and length / material type

Information on the material of the label to be printed are entered here.

Width and Length

The printing area is defined by label width and length =LABELWID and LABELLEN.

Selection (keyboard input)

Label Width:	According to limitation of printer

Label length:	min. 4mm; max. is depending on setting of spooler size
	(see Printout)

The zero-point of the area, i.e. the left-hand lower corner is identical with the recognised punch position (with punched material) or the length position (with endless material).

Material Type

The menu item: PUNCH describes whether punched material (completely punched material, material with reflecting length marks, or self-adhesive material with register punch) or endless material is to be processed.

Selection by <PgUp, PgDn >-

YES =punched material

NO =endless material

The values set at the printer are automatically overwritten by the adjustments defined in the mask!

Punch Offset PUNCHOFF

This menu item is available only, if material type is set to: PUNCHED MATERIAL

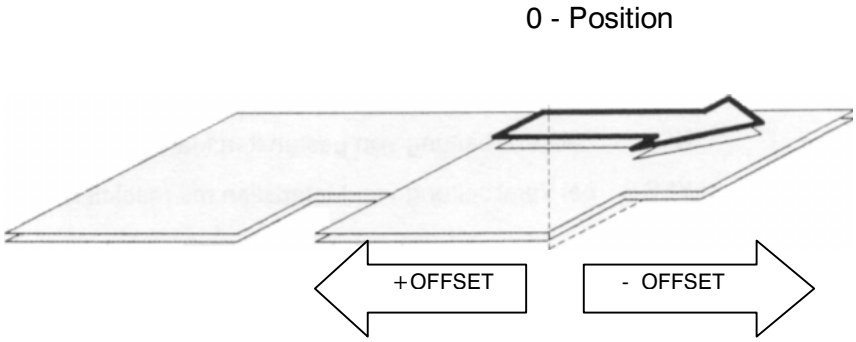
Zero position determination is possible offset from the recognised punch position, by which the beginning of the document can be shifted with irregularly shaped punches (e.g. round labels).

Selection by <keyboard input -at numeric block >.

(+) max. label length offset in feed direction

(-) max. 60mm offset against feed direction

The value set at the printer is automatically overwritten by the adjustment dafined in the mask!



Length of Punch PUNCHLEN

This menu item is available only, if material type is set to: PUNCHED MATERIAL

At labels with punches longer than 15mm the length of the punch can be defined in order to set the material end recognition corresponding to the label. Please regard, that in this ease, when material is ending the print will run on the feed roller which leads to shorter cleaning interval.

NOTE: At punches smaller than 15mm no entry is required

Print series mode PRNTMODE

Optional entry when generating masks which are intended to be performed on printers with a cutting device.

Two modes are selectable. The difference is the positioning of the punch after printout of the label.

This differentiation is necessary if labels are printed on a printer with a cutting device.

Selection by <PgUp, PgDn >

1:1 Mode

The punch is positioned under the cutting device so that the first 17mm of the label cannot be imprinted (measured from the beginning of the label).

Batch Mode

The punch is positioned under the print head, so that the label can be cut only at the next feed impulse

Number of cuts CUT

Optional entry when generating masks which are intended to be performed on printers with a cutting device.

Define the number of cuts within a print series.

Selection by <PgUp, PgDn >

0 without a cut

1 cut after each label

X = 2 – 99 cut after each X label

Relokative positioning X-RELOC / Y-RELOC

All fields of a mask can be shifted as a "whole"

The reference point for positioning all fields is shifted from the zero-point by the x/y-value entered.

The zero - point is the recognised punch position as long as the same is not shifted by inputs (≠0) in the menu item: PUNCHOFF

Note: Faulty printouts may result in the event of offset of one or more fields beyond the printing area defined by material width and length.

Selection by <PgUp, PgDn >

X-RELOC Offset transversally to the material

(- X)	- 10 mm Offset towards printer
(+X)	+10 mm Offset away from printer

Y-RELOC Offset in feeding direction

(-y)	- 10mrn Offset against feeding direction
(+y)	+10 mm Offset in feeding direction

Change Label CHNGLAB

A blank label can be inserted for optical separation of one print series from the next one.

Selection by <PgUp, PgDn >

YES	=Change label at the end of print series

NO	=No change label

Field Name FLDNAM

A field can be included into operations with other fields via the field name.

For fields with variable data regarding which entries are still made in the print menu: PRINTit is recommended to name the respective field for the sake of clarity of the displayed.

The field name appears in the test printout. Missing characters are substituted by the character 'X' in order to fill the defined field length. The data entered on inquiry appear on the final printout via the menu: PRINT.

It is recommended to avoid the name ‘Q’ as field name, as the label quantity to be printed is linked with other fields in arithmetic operations by ‘Q’.

The field name does not appear in the printout.

Selection (keyboard input)

max. 14 alphanumeric characters	1

Character Set FONTNR

Under the term "Character Set" designations are allocated to the elements to be used in the actual field. (Fonts, barcodes, blocks, lines, and rectangles)

One field is to be defined for each element.

Selection is made via abbreviations.

Selection by <PgUp, PgDn >

I0 to I9	Fonts up to a length of max. 70 characters each
C0 to C9	Freely definable fonts to be loaded via cards (length max. 70 characters each)
Barcodes	Barcodes
KL	Freely definable blocks / logos
LIN	Lines
REC	Rectangles

For detailed information on short names see font, barcode, and line library contained in the annex to the Operating Instructions.

Note:

Depending on the element, further input fields are available for its definition, which, however, can be superimposed after acknowledgement of selection of the respective element only.

In detail, this refers to the following:

KL Block/Logo

KLINAM Name. of block; selection of blocks in the storage or on floppy disk is super imposed by <PgUp, PgDn >. Up to 9 blocks can be used within one mask.

LIN, REC Lines and rectangles

LINETYP For line type see library contained in the annex of the Operating Instructions
(Selection: <PgUp, PgDn >)

LINEWID Line width, 1.e. thickness of a line (keyboard input).

LINELEN Length of a line (keyboard input).

RECTWI Width of rectangle transversally to the document (keyboard input).

RECTHI Height of rectangle in feed direction (keyboard input).

Barcodes

CODEHI Barcode height, 10-step variation (0 =6 mm, 9 =5o mm).
(Selection by <PgUp, PgDn >)
(Observe multiplier factor "BARCODEMUL" in menu: PARA)

CODEWI Barcode width, 8-step Variation. (Selection by <PgUp, PgDn >)

H.R.I. NO Characters below barcode are not printed.
YES Character line is also printed. (Selection by <PgUp, PgDn >)

Position of field XPOS, YPOS

Defines the zero-point of the actual field from left and below in relation to that of the printing area.

X-POS	Transversally to the document
Y-POS	In feed direction

The field can be positioned within the printing area in this way.

If no position is indicated, the field does not appear in the printout (e. g. computational fields, ident fields).

To avoid faulty printouts, the entire field is to be positioned within the printing area defined by label width and length.

Selection for both dimensions (keyboard input)

XPOS	Field not to exceed the max. label width specified

YPOS	Field not to exceed the label length specified

Direction of rotation of field DIRECT

The rotation of fields independent of their contents is possible. The zero-point of the field remains fix; the field rotates in anticlockwise direction.

Selection by <PgUp, PgDn >

0, 90, 180, and 270 degrees

Field type

With a field, data are processed as constant or variable text, included into arithmetic operations, or linked with data of other fields.

After selection, further input fields specific to the field type are available for user data. They are located between the items: FLDNAM and INVERSE in the root menu.

The same field type can be used multiple within a mask.

For further information see samples to the field types.

Selection by <PgUp, PgDn >

NF - Normal Field

Field type for variable data processing. The data desirable for printout are entered in the menu: PRINT and are available until next input or reset.

FT - Fixed Text Field

additional field: FIXTXT

The data desirable for printout are resident until next modification.

ID - Ident Field

If an ident number field is entered on mask Generation, differed mask contents can be entered, modified, stored, and printed hers- in connection with an ident number, i.e. data records can be managed under a key designation.

NR - Number Field

additional field: SUMMAND and VCOPY

Consecutive numbering of labels of a print series is possible.

NZ - Number Counter

additional field: SUMMAND and VCOPY

Same function as number field; numbering is, however, continued over several print series having the same mask.

DW - Data Repetition Field

additional field: DW-DAT

The data of other fields can be repeated, those of several fields combined.

RF - Computational Field

additional field: FUNCT:

Field containing the four basic arithmetic operations: summing, subtracting, multiplying, and dividing.

RC - Real Time Field

additional field: RC-TXT

Definition of Real Time Data as text or barcode

Field length FLDLEN

The field length is specified by the number of characters - max. 70 - via the keyboard.

The length is automatically defined with fields of constant inputs, i.e. fixed text fields.

With fields of variable data, the field length is to be defined in accordance with the intended inputs. With major field lengths, which cannot be represented by one display width, horizontal scrolling is performed on input by means of <cursor keys ← →>.

The character width corresponds to the average width of a figure of a type font with proportional character spacing.

Justification JUSTIF

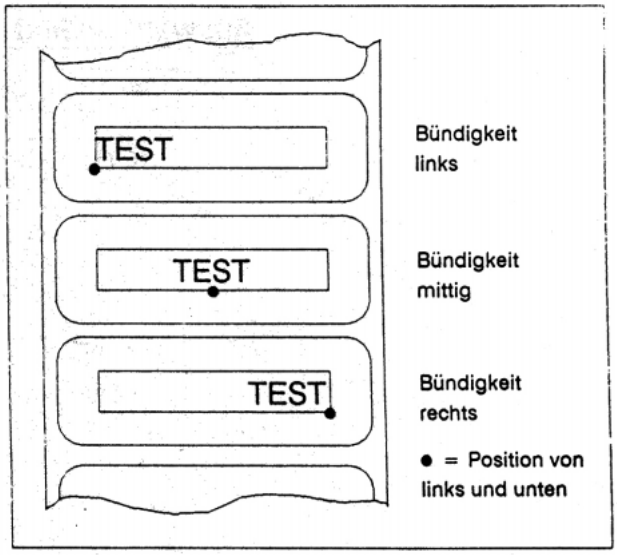
Justification of the entire field regarding the total mask width is reached by specification of the corresponding dimensions under the term "Position".

Selection by <PgUp, PgDn >

L Left justified, the text is built up on the right hand side of the field position

M Centred, the text is built up on both sides of the field position

R Right justified, the text is built up on the left hand side of the field position



Character factor XSCAL / YSCAL

Font type and block proportions can be enlarged by the factors 1 through 8.

Selection by <PgUp, PgDn >

XSCAL	=transversally to the document

YSCAL	=In feed direction

Selection of italic style ITALIC

Selection of italic style of all font sizes available on the printer and of those loaded via cards is possible.

Selection by <PgUp, PgDn >

YES	=Font types printed in italic style

NO	=Font types printed in original style

Selection of inverse print INVERSE

Selection of inverse print – i.e. white print on black background – of all font types available on the printer and of those loaded via cards is possible.

Selection by <PgUp, PgDn >

YES	=inverse print of fonts

NO	=original style of fonts

Note:

The field with the font is first to be backed by a line filed (e.g. font I7 of 4 mm height is backed by a line of type 0, line thickness 10 mm, and length in accordance with the intended text.)

Test printout

There is the possibility to make a test printout of a document without switch over to the print menu. For this purpose the display is to be positioned on the field specific menu item.

Selection by <F2 >

Original printout of constant characters, lines, rectangles, and barcodes is made.

All variable data are represented by the character “X”.

The field name appears on the test printout; missing characters are substituted by the character “X” to fill the defined field length. The entered user data appear on the final printout via the menu : PRINT

Normal Field -NF

Standard field for the input of variable data, with blocks also of changing file name. The data desirable for printout are entered in the menu: PRINT and are available until next entry or reset.

In the test printout via, this field is marked by the field name, and the missing characters by 'X'.

Example

Changing prices (max. up to DM 99.99) are to be indicated on a label for labelling goods and printed in different quantities.

Set Up

The mask name Information is optional; the material Information is to be adapted to the label to be processed (e.g. 20x40 mm, punched, without change label).

Further inputs:

Field Name	FLDNAM	Input	Price
Character Set	FONTNR	Selection	I7 (4 mm high)
Position	X-POS, Y-POS	Input	25 mm from left,
			8 mm from below
Field Type	FLDTYP	Selection	NF
Field Length	FLDLEN	Input	5 (4 digits plus comma)
Justification	JUSTIF	Selection	M (=centred)

No specification of other menu items is necessary.

After data Definition the actual menu is quit via menu item: SAVE; switch over to menu: PRINT

The mask name exists already (due to the previous mask call in the menu: DESIGNThe field name: "Price" appears in the next lower menu item in the display.

Optional user data can be specified here and printed in accordance with the respective quantity specifications.

Fixed Text – FT

Constant data can be defined by this field - with blocks also file names, e.g. "Made in Germany"

After field type definition, the input line: FIXTXT for the input of user data is automatically ready for user data input at the end of the series, i.e. after the menu item: INVERSE

The field length amounts to max. 70 characters and need not be defined with this field type, as it automatically results from the number of characters entered.

Example

On the label specimen used in chapter "Normal Filed" the fixed text "DM" is to be added to the price specified on the label.

Set Up

Mask names and material information remain unchanged. A second field is generated via the menu item: NEXT after selection of the first field.

Inputs into the second field:

Field Name	FLDNAM	Input	Currency
Character Set	FONTNR	Selection	I7 (4 mm high)
Position	X-POS, Y-POS	Input	10 mm from left,
			8 mm from below
Field Type	FLDTYP	Selection	FT
Justification	JUSTIF	Selection	L (=left)

No specification of the other menu items is necessary. Field name specification is recommended for the sake of clarity.

"DM" appears in front of the price in the printout.

Ident Field - ID

If an ident number field is defined upon mask Generation, different user data can be entered, modified, residentially stored, and printed in optional quantities in connection with an ident number.

The length of an ident field amounts to max. 20 characters.

A mask can contain several ident fields. All data of subsequent fields up to the next ID field are managed under one ID number (=data record length of an ident number).

Ident numbers are managed in the ident number file, which has the name of the mask under which the ident numbers have been created, and the extension .001; with several ident fields within the mask the extensions are.002,.003 etc.

The storage capacity of the data carrier (floppy disk) determines number and size of the ident number files.

The user data of an ident number are to be considered as variable data, the individual processing steps regarding ident numbers, i.e. data input, modification, deletion, and printout are performed in the menu: PRINT.

Example

Customer numbers and the respective addresses are to be managed in the ident number file 'Customers'. For this purpose, the customer number is to serve as ident number.

Note: The individual processing steps of the example are performed in separate menus
(DESIGN and PRINT), but are described coherently.

Set Up of Mask (Menu DESIGN) and File (Menu PRINT)

As a first step a mask is generated for the ID number and address Information, into which the respective user data can be entered later. In the example, the mask name, which is also the file name, is "CUSTOMERS".

Mask name: CUSTOMERS.LBL File name: CUSTOMERS.001

The mask contains five fields. In the printout they result in an address containing' customer number, company, contact, street, and place.

After user data entry, they are stored in an ident number file under the also specified ident number (corresponds to the customer number in the example).

Field 1

Ident field simultaneously corresponding to the customer number.

Field Name	FLDNAM	Input	Customer number

Position	X-POS, Y-POS	Input	No input reasoned by not printing this field

Field Type	FLDTYP	Selection	ID

Field Length	FLDLEN	Input	10 (max. 20 characters)

No specification of the other menu items is necessary. Field name specification is recommended for the sake of clarity upon user data input in the menu: PRINT only.

Fields 2, 3, 4, and 5

Normal fields for address data: company, person (contact), street, and place. A length of 30 characters is considered as sufficient.

Field Name	FLDNAM	Input	company, person, street

Position	X-POS, Y-POS	Input	Select input in a way to reach position

Field Type	FLDTYP	Selection	NF

Field Length	FLDLEN	Input	30 (max. 70 characters)

No specification of the other menu items is necessary. Field name specification is recommended for the sake of clarity upon user data input in the menu: PRINT only.

Field length specifications for all five fields result in a data record length of 130 characters, i.e. the data stored under one ident number can be represented by a max. number of 130 characters.

Input of Ident Number Contents (Data Records)

After switching over to the menu: PRINT and mask name input, the five field names and their input fields, into which the customer code and the respective addresses are to be entered, appear in series left in the display. The editing functions - programming level/main menu - are available for inputs, and, in addition, the functions of the print menu for management.

Address input is now possible in accordance with the example

Customer code	Input	AB000001
Company	Input	Automobiles Ltd.
Person	Input	Ms. A. Miller
Street	Input	Baker street SW1 OX3
Place	Input	London
QUANTITY	Input	X X X X X

The quantity specification belonging to the data record is also stored on data input (min. 1, max. 65,000); it is the reference quantity in each ident number printout. Any change of the quantity specification is to be considered as user data modification.

The data input is directly stored by <F5 >; the mask is ready for input of additional addresses.

An optional number of addresses, i.e. ident numbers, can be entered into the ID file following the same procedure.

Storage, Modification, Deletion, and Printout of Ident Numbers

Condition for processing of ID numbers and their contents is that the data record of the respective ID number is read-in by <F7 >. If the ident number is. not found depress optional key and again operate <F7 >.

Ident number input in ascending order is possible by repeated depression of <F7 >

By depressing <F10 >the menu item: QUANTITY can be selected directly respectively left directly back to the menu item from which the function was started and the next ident number can be read-in.

The mask is ready for input of additional data after termination of one step.

Storage of ident numbers <F5>

Data input is directly stored by <F5 >; the mask is ready for input of additional addresses.

The following consultation is displayed if an ident number is already existing:

WRT	AB000001	Y/N

AB000001 represents the ID number under which the user data have been stored last.

Input <Y>	The existing ident number is overwritten

Input <N >	No storage; the data entered last are preserved for further processing

Modification of ident numbers

It is possible to mode the data of the entered ident number, and to again store them by <F5 >.

Identical ident numbers cannot be stored.

Deletion of ident numbers <F6>

The ident number read in by <F7 >can be deleted from the file by <F6 >.

The following consultation is displayed prior to deletion:

DEL	ABOOOOD1	Y/N

ABOOOOOI constitutes the ident number under which the user data were stored last.

Input <Y>	Deletion of displayed ident number

Input <N >	Abnormal termination of process

Recovery of ident numbers deleted by <Y >is possible by re entry only.

Printout of ident numbers <F2 >

The ident number read in by <F7 >can be printed via <F2 >.

User data - including quantity specification, which forms part of user data with ident numbers - can be optionally modified prior to printout and also stored by <F5 >.

By depressing <F10 >the menu item: QUANTITY can be selected directly respectively left directly back to the menu item from which the function was started and the next ident number can be read in.

Without storage, the user data are preserved in the condition stored last.

Sequence field - NR

Consecutive numbering figures - divided into steps =summand 1 or greater - with positive or negative sign can be printed on labels. The summand is to be entered with a negative sign with numbers in descending order.

Example

100 labels are to be numbered in groups of two in descending order, starting with the number 1 0000. Two labels each are to be printed with the same number.

Field Name	FLDNAM	Input recommended	

Field Type	FLDTYP	Selection	NF

Field Length	FLDLEN	Input	5

This information defines the number of digits of the numbering field

Summand	SUMMAND	Input	-2

Position and character set are optional. No specification of the other menu items is required. The field name is specified for the sake of clarity only.

Quantity same label	VCOPY	Input	2

After data definition, the actual menu is quit via menu item: SAVE; switch over to menu item: PRINT.
The mask name exists already (due to the previous mask name call in the menu: DESIGN

The field name appears in the display in the next lower menu item.

The starting number for numbering, i.e. "10000", and quantity "100" are now specified.

Number Counter Field - NZ

Identical function as field type: Sequence Field. It is, however, possible to count identical labels having identical masks of several consecutive print series whose numbering figure appears on the label.

Consecutive numbering is only terminated by the printout of other masks, or reset / connection of the printer.

For set up procedure for this filed see description of Sequence Field.

Data repetition field - DW

If identical data are to be printed on the label at different positions, the data of already generated fields can be repeated by means of the field type: DW =Data Repetition Field. In addition, part of the data of different fields can be combined.

Functional Syntax of DW-Data (Term. DW-DAT)

If in the DW-field regarding the term: DW-IDAT (by which user data of the DW-field are defined) reference is made to the name of a generated field, all data of the respective field are repeated.

Additional field names - separation by a blank each - can be entered. Consecutive printout of the data of these fields is then made without blank space.

If an entered text does not exist in the form of a field name, this text is inserted as fixed text.

One blank is inserted in the printout if two blanks are entered between the texts.

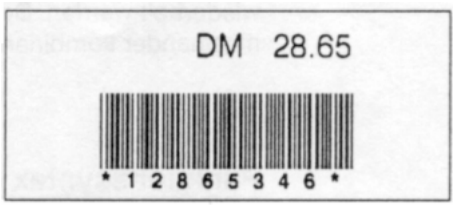
By the number character (#) followed by a number (from 1 to 70) after field names it is possible to specify from which position the data of another field are to be included into the function. A second number character followed by a number (from 2 to 70) after field names and first number specification defines the number of positions to be included into the function.

The number of places after the decimal point can be specified by a colon followed by a number at the end of the input.

No repetition of fields containing the data record elements line and rectangle is possible.
If error: DW/RF FIELD ERROR appears, please check function to correct data entry (field names, functional characters etc.).

Example

The price in DM is to be included also into the barcode on a label Four fields are defined for this purpose upon mask Generation



Field 1

User data are repeated and combined in this field.

Character set:	FONTNR	Selection	C39

Field type	FLDTYP	Selection	DW

Characters	H. R. 1.	Selection	YES

IDW-data	DW-DAT	Input	1 Transformer#3#4 346

Function of DW-data: 1 Transformer#3#4 346

The character line of the barcode is to include the following data: 1xxxx346

For character line set-up this input defines which digit is to appear at which position: - » 1 is the barcode digit as fixed text at the first position.

Transformer#3#4 means: From the field "Transformer' (see Field 2), part of the data, is four digits starting from the third digit in the barcode, is to be inserted at the second through fifth position.

346 are the barcode digits at the three last positions.

Blank spaces are required between the data parts, i.e. in this example between '1', "Transformer#3#4', and '346'.

Optional selection of position, barcode height, and width (X-POS, Y-POS, CODEHI, CODEWI).
No specification of the other menu items is required.

Field 2

In this field the variable data of the price specification are transformed for inclusion into the barcode.

As no decimal point is to be included into the barcode, it is necessary to transform the price specification accordingly.

If the number of digits in front of the decimal point changes, the field 'Transformer' is to be modified regarding the conversion factor (1100), and the DW-field with respect to acquisition of data parts (#3#4).

Field name	FLDNAM	Input	Transformer

Position	XPOS,YPOS	No input; this field is not to appear on the label

Field type	FLDTYP	Selection	RF

Arithmetic function:	FUNCT	Input	Price/100:4

Function of computational field : Price/100:4

The value entered into the field "Price" is divided by 100 and calculated up to four places after the decimal point.

Optional selection of character set (FONTNR). No specification of the other menu items is required.

Field 3

This field serves for entry of variable prices in the print menu: FRINT.

Field name	FLDNAM	Input	Price

Field type	FLDTYP	Selection	NF

Field length	FLDLEN	Input	5

Optional selection of position and character set (X-POS, Y-POS, FONTNR). No specification of the other menu items is required.

The price in DM is entered upon real printout (F3 level).

Field 4

Identification of price specification

Field name	FLDNAM	Input	Price

Field type	FLDTYP	Selection	FT

Fixed Text	FIXTXT	Input	DM

Optional selection of position and character set (X-POS, Y-POS, FONTNR). No specification of the other menu items is required.

After mask set-up and switching over to the print menu: PRINT, the variable price is entered on inquiry, e.g. . It appears in the barcode from the second through fifth Position.

Computational Field - RF

The four basic arithmetic operations in connection with data from all other mask fields can be performed in this field.

Functional Syntax of RF-Data (Term. FUNCT)

The arithmetic rules are not considered!!!

Arithmetic operation signs: Addition (+), subtraction (-), multiplication (*), division (/)

By the number character (#) followed by a number (from 1 to 70) after field names it is possible to specify, from which position the data of another field are to be included into the function. A second number character followed by a . number (from 2 to 70) after field names and first number specification defines the number of positions to be included into the function.

The number of places after the decimal point can be specified by a colon followed by a number at the end of the input.

Fields containing the field elements: line and rectangle cannot be included into the function.

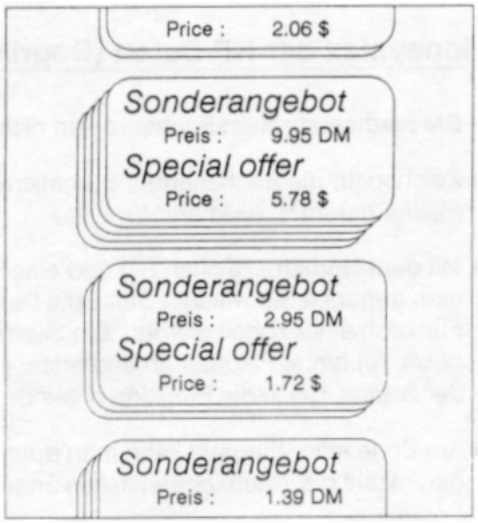
The label quantity to be printed can be included into the function by the character 'Q'. Definition of fields by 'Q' is there for not recommended.

For function set-up in the computational field see also example: Data Repetition Field.

If error: DW/RF FIELD ERROR appears, please check function to correct data entry (field names, functional characters etc.)

Example:

Both the price in DM and US$ is to be printed on a label.



The following fields are set up according to the printout desired

Field 1 and 4 The text “Sonderangebot” and “special offer” as fixed text in italic style

Fields 2, 3, 5, 6 The text “Preis” “DM” “Price” and “$” as fixed text

Field 7 field for input of variable price specification in the print out menu

Field 8 Computational field for conversion of “price in DM” into 2price in $”

Fields 1 and 4

In these fields, the text "Sonderangebot" and "Special offer" are represented as fixed text in italic style.

Character set	FONTNR	Selection	I5 (arbitrary) .

Field type	FLDTYP	Selection	FT (Fixed Text Field)

Italic style	ITALIC STYLE	Input	YES (arbitrary)

No specification of the other menu items is required.

Fields 2, 3 and 5, 6

The text "Preis", "DM" and "Price", "$" as fixed texts.

Set up is identical with fields 1 and 4; however, character set and position are to be selected in accordance with the desired label layout.

Field 7

This field serves for input of the variable prices in the print menu: PRINT.

Field name	FLDNAM	Input	Prices .

Character set	FONTNR	Selection	I2 (arbitrary) .

Field type	FLDTYP	Selection	NF (normal field)

Field length	FLDLENG	Input	Arbitrary

***** Field length to correspond to the number of digits of prices to be entered and converted.

No specification of the other menu items is required.

Field 8

Computational field for conversion of "prices in DM" into "prices in $".

Field name	FLDNAM	Input	Conversion / Dollar .

Character set	FONTNR	Selection	I2 .

Field type	FLDTYP	Selection	RF (computational field)

Arithmetic function	FUNCT	Input	Price Input/1.72

No specification of the other menu items is required.

Function of computational field: Price input/1.72

The value entered into the field "Price-Input" is divided by 1.72 (1.72 =assumed exchange rate)

All other field specifications are optional.

The price in DM is entered in the print menu: PRINT in accordance with the field inquiry; the label shows the following:

DM 9.95 US$ 5.78

Real Time Field - RC

Defines a Real Time Data for printout as text or barcode, the printer has to be equipped with the optional clock. Normal text (ASCII-characters) can be combined with the real time in one line.

There are arbitrary real time data on one label possible, three of them can be updated during a running print job.

The time text line can be printed with up to 57 characters.

The Control character will be printed as ASCII character by entryof (^^). '

Syntax of Real Time Data

FONTNR Entry of character set: Font or Barcode

FLDTYP Selection of field type: RC

UPDATE Update during running print job: "NO" resp. "YES"

DAYOFF	Day-Offset:	0	The current date will be printed
		1-65000	The current date will be calculated forward . corresponding to the entered number

RC – TXT Echtzeitangabe

^z = 1 /100 seconds	^D = day
^s = seconds	^M = month
^m= minutes	^Y = year
^h = hours	^G = 3-digits month indication german
	^E = 3-digits month indication english
	^S = text of #DM-command

Individual Month names ^S

In order to print individual month names, a field with the desired texts in the #DM command can be generated with the Easy Plug Editor.

This file has to be loaded into the printer's RAM by calling it up a single time before using the mask with the real time data. The file is resident until sending new texts resp. switching off the printer.

Example

Time and date should be print on a label, time is to be updated during the running job.

DATE **MRC 12th 1992**

TIME **09:22.18,0**

The following fields are set up according to the printout desired:

Field 1

FLDTYP (Field type)	Selection	RC
UPDATE	Selection	YES
DAYOFF (Day-Offset)	Selection	NO
RC-TXT (Real Time definition)	Entry	DATE ^E ^Dth 19^Y

Field 2

FLDTYP (Field type)	Selection	RC
UPDATE	Selection	YES
DAYOFF (Day-Offset)	Selection	NO

The Position of fields 1 and 2 is to be selected in a way to ensure clear data representation.
Selection of character sets (FONTNR) of the individual fields is optional and depends on the typographic label layout.

Specification of the field names (FLDNAM) is recommended for the sake of clarity.

Deletion of Masks – DELETE

Selection

Select the desired menu item in accordance with the root menu by cursor keys <← →>for horizontal movement, and by cursor keys <↑ ↓>for vertical movement.

For root menu see end of each chapter.

Function Call

Select sub menu: DELETE, menu item: MASK NAME

Enter mask name to be deleted; acknowledge by <ENTER > Display: DEL (name of mask) Y/N

Acknowledge with	Y	Mask will be deleted
	N	Operation will be terminated abnormally

The display returns to the root menu.

Attention: Deleting a mask which contains an ident field, the ident file will also be deleted.

Copying of Masks - COPY

Selection

Select the desired menu item in accordance with the root menu by cursor keys <← →>for horizontal movement, and by cursor keys <↑ ↓>for vertical movement.

Function Call

Select sub menu: COPY, menu item: MASK NAME

Enter mask name to be copied; acknowledge by <ENTER > Display: DESTNAME:.....

Enter new mask name under which the mask should be stored and acknowledge by <ENTER> For mask names 8 characters are maximum. The source mask is preserved in its last saved condition.

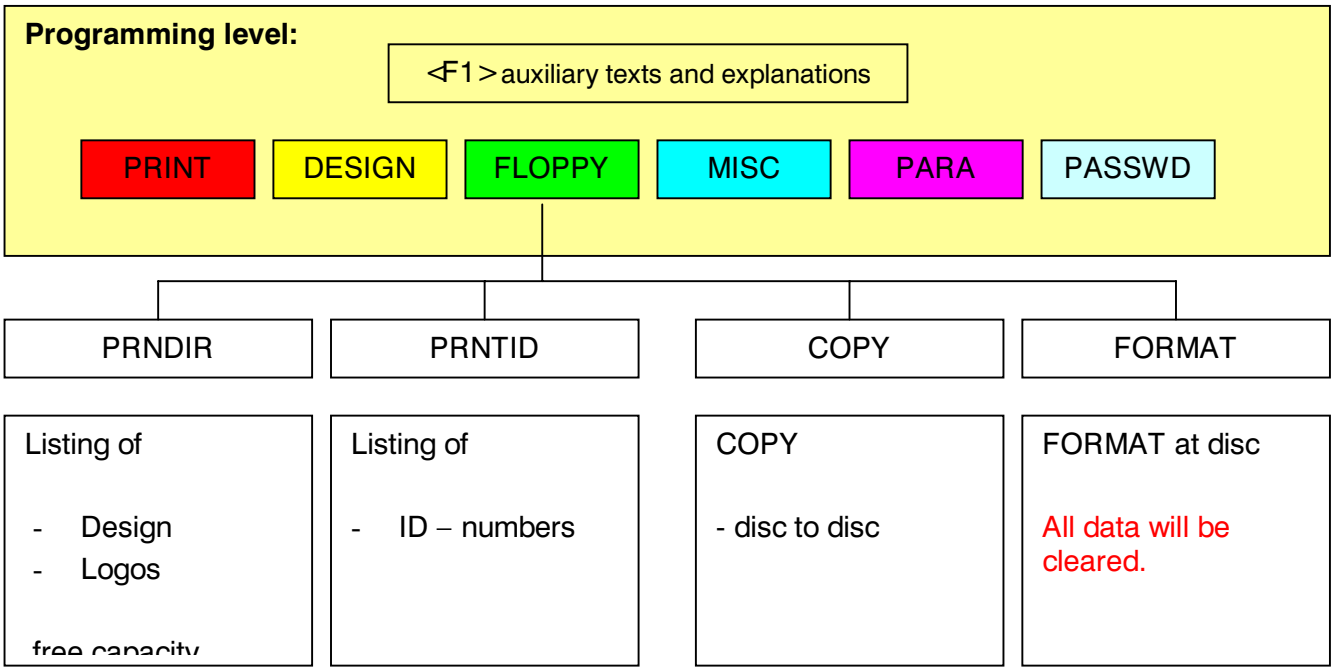
The display returns to the root menu.

Note:

Copying a mask which contains an ident field, the ident file will also be copied.

With this function files can be copied also from disc to disc by exchanging the source disc for the destination disc before acknowledging the new mask name(DESTNAME).

Floppy


Programming level:
<F1> auxiliary texts and explanations
PRINT
DESIGN
FLOPPY
MISC
PARA
PASSWD
PRNDIR
PRNTID
COPY
FORMAT
Listing of
- Design
- Logos
free capacity
Listing of
- ID – numbers
COPY
- disc to disc
FORMAT at disc
All data will be cleared.

Listing of masks and logos - PRNDIR

A listing of all masks and logos stored on the inserted floppy disk is prepared, which facilitates management and control of already existing designations.

DESIGNS - masks, generated in the MVTIII mode <MASKNAME.LBL>with information to mask name data, occupied storage space in byte, information on the material(punched / endless, width * length) and the number of fields within the mask.

LOGOS - blocks, available in the Easy Plug format <LOGONAME.EPT >listed with name and occupied storage space.

EASYPLUG FILES - files, generated in the Easy Plug mode <FILENAME.EPF >with information to file name data and occupied storage space.

..... **BYTES FREE** - The storage capacity still available on the disk.

NOTE: Exclusively files stored in the Easy Plug format are listed.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

Note

If the message: DRIVE NOT READY is displayed, insert floppy disk into drive and acknowledge message by <ENTER >before re selection .

This listing is placed on the last position within a series of print jobs.

The printer must be in the active mode!

Listing of ID numbers – PRNTID

A listing of all ident numbers stored in a ident file is prepared, which facilitates management and control of already existing designations.

This listing contains name data of the ident file and the ident numbers. If the mask which is base to the ident field contains more ident fields, also these files with the ident numbers will be listed accordingly.

NOTE: Exclusively mask and logo files stored in the Easy Plug format are listed.

Selection and Start

Select desired menu item in accordance with root menu:

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start function by key <↓>or <ENTER > Display **MASKNAME:.....**

After entry of mask name start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

NOTE: If the message: DRIVE NOT READY is displayed, insert floppy disk into drive and acknowledge message by <ENTER >before re selection.

This listing is placed on the last position within a series of print jobs.

The printer must be in the active mode!

Copying of discs – COPY

Data can be copied from one floppy disk to another one in the 1:1 mode. All data stored on a source disk are copied in several steps. The data on the source disk are preserved, while those on the destination disk are overwritten.

Floppy disk format: 3.5 “; 1.44 MB; High Density;

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement
and <↑ ↓>for vertical movement
Start printout by key <↓>or <ENTER >

A

Display	INSERT SOURCE DISK	Insert source disk

Depress	<ENTER >	Display	XX KB READ

The data are loaded, after termination of process:

B

Display	INSERT DESTINATION DISK	Insert destination disk

Depress	<ENTER >	Display	XX KB WRITTEN

The data are transmitted to the destination disk, after termination of process:

Display	INSERT DESTINATION DISK	Ahead by steps A and B

The display returns to the main menu after termination of the last intermediate step.

NOTE: Do not confuse source and destination disk!!!

If the message: DRIVE NOT READY is displayed, insert floppy disk into drive and acknowledge message by <ENTER >before re selection.

Formatting of Floppy Disk - FORMAT

Floppy disks can be formatted.

Floppy disk need to have the following specification:

3.5 “; 1.44 MB; High Density;

Selection

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start

Insert disk

Start procedure by key <↓>or <ENTER >

Display **FORMAT DISK** **Y/N**

<Y> The operation will be started, the display counts corresponding to the formatted sectors (0-max) Display: **Formatting TRACK XX**

<N> Termination of process

The display returns to the main menu after end of formatting resp. termination of process.

NOTE If the message: DRIVE NOT READY is displayed, insert floppy disk into drive and acknowledge message by <ENTER >before re selection.

MISC

Programming level:
<F1> auxiliary texts and explanations
PRINT
DESIGN
FLOPPY
MISC
PARA
PASSWD
STATUS
PCHECK
CARDIN
DOWNLD
PARA
Adjustment of
LOGO
Assignment of
PUNCH
Kontrollausdruck
FONTS
font library
SERV
service data
check printout
DOT1
Service printout
DOT2
Service printout
DISCCK
PRNTCK
DRAM
RAM TEST
SENS
Test
PRINT
Demo printout
CARD
Test
Initialising
of a
RAM card
DOWNLOAD
of
fonts
and logos

Parameter Printout - PARA

A listing of parameter adjustments specific to the customer can be prepared for ease of reference.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

Contents of Logo Buffer - LOGO

A listing of the logo addresses used can be printed out for ease of logo buffer management.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

Punch recognition Test printout – PUNCH

Material transparency is represented graphically. A printout can only be made after light barrier initialisation.

For this purpose set parameter "MATERIAL" to "PUNCH" (for selection and setting see "Adjustment of Parameters"). Following insert material and depress (FF) key; the light barrier is initialised.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

Font library – FONTS

Print examples of all fonts installed.

The printout does not include all selectable characters.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

Service Parameter - SERV

A test printout regarding feeding roller, printhead, and service parameters is possible. For this purpose preferably use endless material of a width of approx. 100 mm.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

DOT1 and DOT2

A test print out regarding the positioning of the label can be printed. As well the version number of firmware and a test pattern is included. Endless media is used for DOT1 – notched media for DOT2.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start printout by key <↓>or <ENTER >

The listing is printed out.

The display returns to the main menu.

Disc check – DISCCK

A read - write test is performed with inserted floppy disk. Operability of the disk drive is checked simultaneously.

This test can only be performed with formatted disks.

Attention: All data stored on the disk are cleared!

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Acknowledge selection by key <↓>or <ENTER >

Display	**DISCCK**	**Y/N**

<Y>	Test counts up the sectors (0 - max.) checked and starts again after reaching the maximum number. Stop test by <ENTER >

<N>	Termination of process

The display returns to the main menu after end of formatting resp. termination of process.

Ram test without RAM cards - DRAM

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start selection by key <↓>or <ENTER >

DRAM test counts up according to storage size checked and starts again after reaching the maximum number. A possibly plugged-in RAM card is not checked.

Stop DRAM test by <ENTER >

The display returns to the main menu.

Gall customer service if status message **"RAMTEST FAILED"** (storage error) is displayed.

Check of sensor – SENS

The position and function is checked in the sensor test. Apart from the status displays .'0.' and "1 ", changing levels are also indicated.

Selection and Start

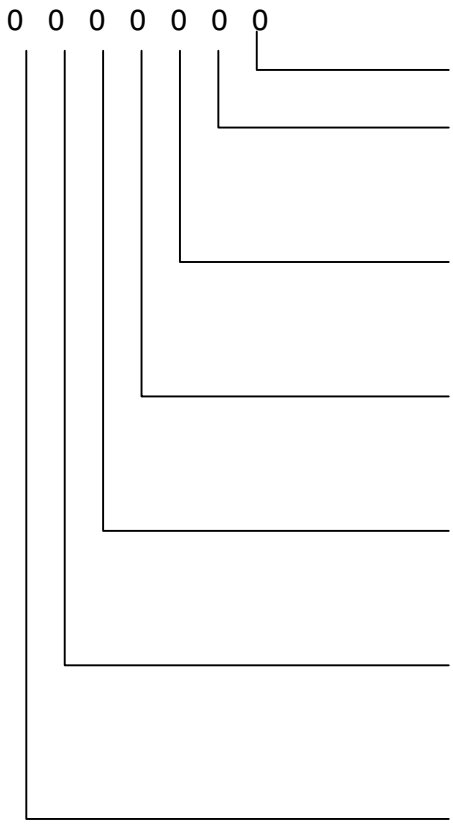
Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Acknowledge selection by key <⇩>or <ENTER >

Display SENSOR X X X X X X X



optional sensor – not used

SINGLE START LED (optional)
0 =media not recognised
1 =media recognised

PUNCH REFLEX (optional)
0 =media not recognised
1 =media recognised

PRESSURE LEVER TO FEED ROLLER
0 =lever closed
1 =lever open

FOIL END LED
moving the ribbon unwind core the display changes between "0" and "1"

PUNCH HIGH POWER
0 =media not recognised
1 =media recognised

PUNCH LOW POWER
0 =media not recognised
1 =media recognised

Stop sensor check by <ENTER >

The display returns to the main menu.

Attention On termination of this test, RESET is performed simultaneously.

TESTPRINT - PRINT

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start selection by key <⇩>or <ENTER >

Display **RUN REST: XXXXX**

Stop or restart by <F1>key

Display **STOP REST: XXXXX** or **RUN REST: XXXXX**

Abnormal termination of test print by <F2 >key

The display returns to the main menu.

Attention: On termination of this test, RESET is performed simultaneously.

Test RAM cards – CARD

Attention: All data on the card are cleared on start of test "CARD" !

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Start selection by key <⇩>or <ENTER >

Display **RAMCARD TEST XXXK**

Stop by <ENTER >

The display returns to the main menu.

The capacity indicated in the display and that specified on the card must be identical, as otherwise faulty function may occur during operation.

If display: **"RAMCARD TEST FAIL":** Clean plugs, or card is defective or missing.

Depress <ENTER >

The display returns to the main menu.

Attention On termination of this test, RESET is performed simultaneously.

Formatting of RAM Card – CARDIN

RAM cards can be formatted as spooler or logo buffers.

Attention: All data on the card are cleared !

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

NO If card is not to be formatted

YES If card is to be formatted

By key <PgUp >=forward, by key <PgDn >=backward

Start formatting by cursor <↓>key or <ENTER >

The display returns to the main menu

The following error message may be displayed as information on RAM card operability:

15 SPOOLER INIT RAM card used as spooler or logo buffer is not recognised

Measure:

1. Depress (F3) key - acoustic signal switched off
2. Depress (F2) key for status message acknowledgement
3. Check card contacts Card may be defective or must be re initialised

Downloading of fonts / logos – DOWNLD

Downloading of fonts and logos (selection as fonts) on RAM cards is possible by the support of auxiliary programs (FONT LINK, etc.) via the interface.

Fonts/logos are selected via Easy Plug command #200 and higher.

Attention: All data on the RAM card and in the spooler are cleared on transmission.
Observe instructions for plugging - in of RAM card!!!
See details for inserting of RAM cards !

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

NO For abnormal termination of function call

YES For execution of function

By key <PgUp >=forward; by key <PgDn >=backward

Call process by cursor <↓>key or <ENTER >

The following display appears according to the adjustment made:

DOWNLOAD	Y/N

Keyboard input of	<Y >or <N >

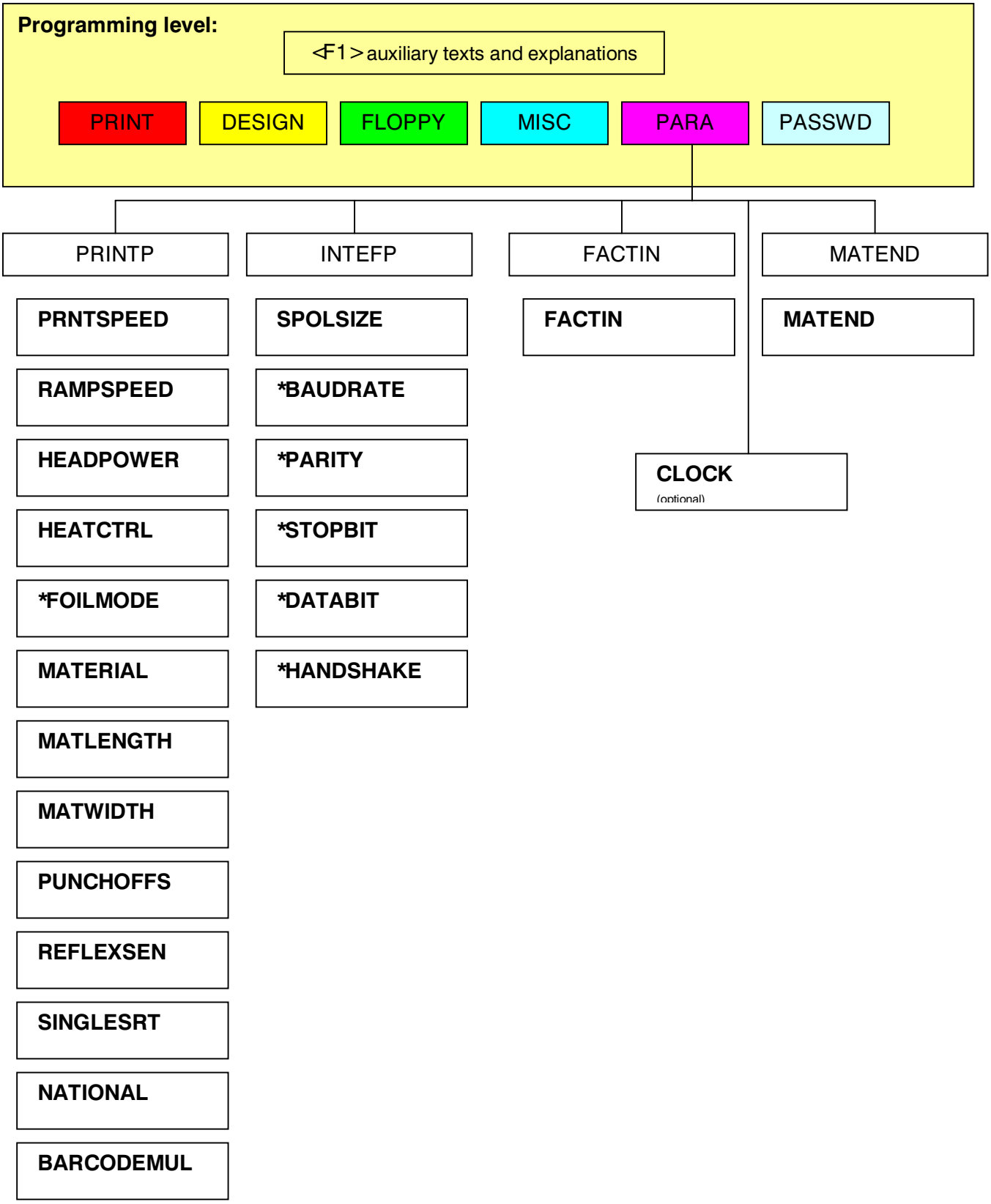
Selection: NO Display returns to main menu
YES Display: DOWNLOAD 0 KB

Printer ready for receipt of data on RAM card.

Acknowledge by <ENTER >after transmission

In addition, a reset on the printer is to be made prior to start of print for access to the card data.

Parameters


Programming level:
<F1> auxiliary texts and explanations
PRINT
DESIGN
FLOPPY
MISC
PARA
PASSWD
PRINTP
INTEFP
FACTIN
MATEND
PRNTSPEED
RAMPSPEED
HEADPOWER
HEATCTRL
*FOILMODE
MATERIAL
MATLENGTH
MATWIDTH
PUNCHOFFS
REFLEXSEN
SINGLESRT
NATIONAL
BARCODEMUL
SPOLSIZE
*BAUDRATE
*PARITY
*STOPBIT
*DATABIT
*HANDSHAKE
FACTIN
MATEND
CLOCK
(optional)

Printing Speed - PRNTSPEED

The printing speed can be adapted to the foil used and to the material properties to optimise contrast intensity of print.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Printing speed:	3 INCH/S	3 Inches / Second
	4 INCH/S	4 Inches / Second
	5 INCH/S	5 Inches / Second

By key <PgUp >=slower, by key <PgDn >=faster

By cursor key <↓>ahead to next parameter

or

Depress <ENTER>up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Feeding Speed without print – SLEWSPEED

The feeding speed can be increased between the printing cycles, by which it is possible to reduce the total printing time particularly with long labels having small areas to be printed.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Feeding speed:	DISABLED	no change
	3 INCH/S	3 inches / second
	.....	
	8 INCH/S	8 inches / second
(Setting steps: INCH/S		1 inch per second)

By key <PgUp >=slower, by key <PgDn >=faster

By cursor key <↓>ahead to next parameter

or

Depress <ENTER>up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Note For print applications requiring longer computation steps (e.g. consecutive numbering) the feeding speed is not to be selected too high to avoid heavy slowing down to "O" and re acceleration to printing speed.

Headpower - Heatcontrol

The factory adjusted value – supplied to the head is shown with this parameter (Display HV 90). This value can not be changed. The adjustment is done with the pot on the rear side.

The parameters appearing in the menu order:
"Headpower" and "Heatctrl" are parameters related to the production process and can not be altered. The well functioning of the printer is independent of these two adjustment.

Thermal / Thermal - Transfer Print - FOILMODE

Selection between thermal and thermal - transfer print is possible. Selection of print type is necessary for switching over FOIL END RECOGNITION.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

NO For abnormal termination of function call

YES For execution of function

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Material type – MATERIAL

Definition of backing material used. Distinction is made between endless material (without punches) and punched material (perforated material and self-adhesive labels with die cut punch).

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

ENDLESS For abnormal termination of function call

PUNCH For execution of function

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Material length – MATLENGTH

Material length (punch distance) can be read off and modified in steps of mm.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Minimum length spec	4 mm
Maximum length spec	depending on printer

Keyboard input of desired value

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Material width – MATWIDTH

The position of the left rim in the line printer mode can be specified. Material width can be read off or modified in steps of mm.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Minimum width	4 mm
Maximum width	105 mm

Keyboard input of desired value

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Punch Offset – PUNCHOFFS

The 0-position can be determined offset from the recognised punch position.

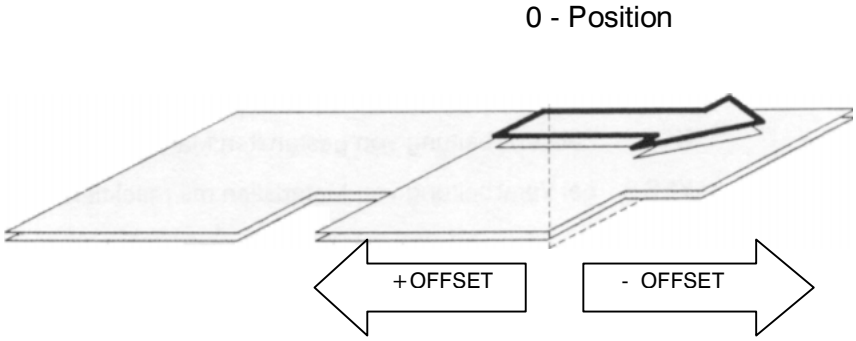
Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment



Maximum (negative offset in feed direction	60 mm
Maximum offset against feed direction	maximum label length

Keyboard input of desired value

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Material light barrier – REFLEXSEN

The optional reflecting light barrier and the standard factory installed light barrier are to be defined according to the application.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

NO For processing of punched materials

YES For processing of materials with reflective marks

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Single start (optional) – SINGLESRT

Automatic start of print is to be activated or deactivated after removal of a self-adhesive label. Installation of the optional auto-single-start device is required for this purpose.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

YES If automatic single start is to be activated

NO If automatic single start is to be deactivated

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Note The label can be further advanced for ease of removal by modification of the parameter “STZO” (positive value) on the printer.

National Character sets - NATIONAL

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

USA	USA	SWEDEN	Sweden
UK	United Kingdom	SPAIN	Spain
FRANCE	France	NORWAY	Norway
GERMANY	Germany	SPECIAL	Special
ITALY	Italy	IBM	IBM

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<BARCODEMUL>**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Characters - specific to language

Base to all character sets are the sets 32 - 127 (decimal) of the multilingual character set (see next page).

According to the selected character set, the decimal and hexadecimal values are defined as shown in the following chart.

Decimal value	35	36	64	91	92	93	94	96	123	124	125	126
Hexadecimal value	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E

USA	#	$	@	[	\	]	^	‘	{	|	}	~
Großbritannien	£	$	@	[	\	]	^	‘	{	|	}	_
Frankreich	£	$	à	°	ç	§	^	‘	é	ù	è	~
Deutschland	#	$	§	Ä	Ö	Ü	^	‘	ä	ö	ü	ß
Italien	£	$	§	°	ç	é	^	ù	à	ò	è	‘
Schweden	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
Spanien	#	$	@	¡	Ñ	Ç	^	‘	¿	ñ	ç	~
Norwegen	#	$	@	Æ	Ø	Å	^	‘	æ	ø	å	~
Sonderzeichen	ƒ	¢			1/4	1/2			«	■	»	±

Mehrsprachiger Standardzeichensatz (IBM-ähnlich)

Multilingual character set

Decimal Value →	Hex Value ↓	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0				0	@	P	`	p	Ç	É						∇
1	1			!	1	A	Q	a	q	ü	œ					β	±
2	2			"	2	B	R	b	r	é	Æ						∇
3	3			#	3	C	S	c	s								∇
4	4			$	4	D	T	d	t	ä	ö	ñ					∇
5	5			%	5	E	U	e	u	à	ò	Ñ					∇
6	6			&	6	F	V	f	v	å						µ	
7	7			'	7	G	W	g	w	ç	ù						
8	8			(	8	H	X	h	x			¿					°
9	9			)	9	I	Y	i	y		Ö						
10	A			*	:	J	Z	j	z	è	Ü						
11	B			+	;	K	[	k	{		∇	½					
12	C			,	<	L	\	l	|		£	¼					
13	D			-	=	M	]	m	}	ì	∇	¡	∇				
14	E			.	>	N	^	n	~	Ä		«					∇
15	F			/	?	O	_	o	∇	Å	ƒ	»		∇			

∇ Character do appear different at screen and printer

Decimal value	127	155	157	189	207	240	242	243	244	245	254
Hex value	7F	9B	9D	BD	CF	F0	F2	F3	F4	F5	FE
Screen	⌂	¢	¥	╜	╧	≡	≥	≤	⌠	⌡	■
Print	▒	ø	Ø	¢	¤	—	£	¾	¶	§	DM

Variation of barcode height – BARCODMUL

The barcode height can be varied in steps from 1 - 1 0 mm. The actual barcode height is calculated on the basis of the value defined in the label layout (mask) multiplied by ihe enlargement factor "BARCOCMUL".

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

The variation factor can be defined within the range from:

*1 =1 mm to *10 =10 mm

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Return to main menu by depressing <ENTER >again

Example The value "*3" is set for "BARCODMUL".
The EASY PLUG command in the label layout is barcode height /4/.
Result: The barcode is printed in a height of 15 mm (4 +1) * 3 =15.

Note The value set on the printer is also relevant for further print jobs and can be modified for them as required.

The value is transferred to the NOVRAM storage.

Spooler size – SPOLSIZE

The spooler size is selectable in accordance with requirements specific to the customer. It influences the maximum print format if no RAM card is used for storage extension.

Attention: All received data in the printer buffer are cleared!

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Possible setting:

8 KB, 16 KB, 32 KB, 64 KB

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<HANDSHAKE >**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Transmission speed – BAUDRATE

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Possible settings:

300, 600, 1200, 2400, 4800, 9600, 19200 (Display : 192%) BAUD

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<HANDSHAKE >**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Parity - PARITY

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Possible settings:

NO	no test bit
CLRD	test bit always “0”
ODD	Odd parity
EVEN	Even parity

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<HANDSHAKE >**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Number of stop bits – STOPBIT

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Possible settings:

1 bit 1 stop bit

2 bit 2 stop bit

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<HANDSHAKE >**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Number of data bit – DATABIT

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Possible settings:

7 bit 7 data bit

8 bit 8 data bit

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<HANDSHAKE >**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Transmission synchronisation – HANDSHAKE

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Possible settings:

RTS Hardware Handshake (RTS/CTS)

XON/XOFF Software Handshake (XON/XOFF)

By key <PgUp >=forward; by key <PgDn >=backward

By cursor key <↓>ahead to next parameter

or

Depress <ENTER >up to **<HANDSHAKE >**

Return to main menu by depressing <ENTER >again

The value is transferred to the NOVRAM storage.

Adjustment of parameters to factory setting – FACTORYINIT

All parameters are overwritten by factory settings.

Both the actual and factory settings can be printed out via printout "PARA"
(selection and adjustment see status printouts: Adjustment of Parameters).

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Performance of factory setting by key <PgUp >or depress <ENTER >

The cursor returns to the main menu in both cases

Material end recognition - MATEND

Adjust material-end recognition, initialise or check light barrier !

No material must be inserted into the light barrier!

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Initialisation of light barrier by key <PgUp >or depress <ENTER >

The cursor returns to the main menu in both eases.

Trouble may occur regarding material end recognition or punch initialisation if the indicated value exceeds "MA06".

In case of doubt call customer service.

Real time clock – CLOCK

Adjusting the real time clock (RTC) to current time. This parameter can be activated only if the optional clock is installed.

CAUTION! – Perform a factory reset after mounting the RTC – otherwise, the printer will not recognize the RTC (Parameter PARA / FACTIN).

Adjustment to the correct time has to be performed by the user.

The clock has a life of about 10 years. Leap years are calculated automatically.

Selection and Start

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Acknowledge selection by <ENTER >	Display	**TIME (hh:mm):..:..**

Keyboard input of desired hour (HH) and minute (MM) with 2 digits each, key in a colon to separate the two units.

By <ENTER >ahead to	Display	**DATE (DD/MM/YY):../../..**

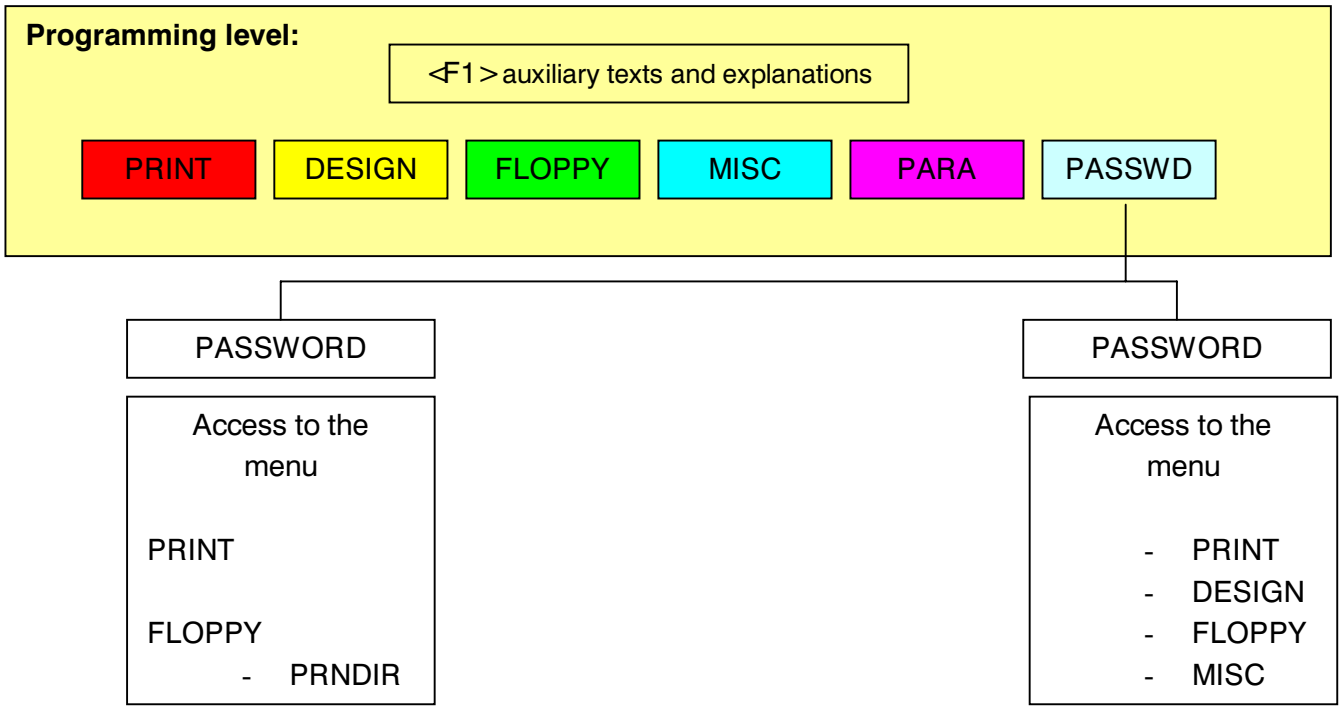
Keyboard input of desired day (DD) month (MM) and year (YY) with 2 digits each, key in a slash to separate the two units.

Acknowledge the set values by <ENTER >

The cursor switches back to main menu.

Seconds and hundredth can not be selected. Their adjustment is performed by acknowledging
the time adjustment right in the moment when the real time passes the zero lines these two units are set back to zero in this moment.

Password



Password - PASSWD

It is possible to protect the unit from unauthorised use by means of a two stage password function.

Stage 1 Access to printing and listing of the mask/logo directory as well as to the listing of ID numbers

Labels can be printed with masks whose data are loaded from a floppy disk. Access to this stage is not subject to a password; there is always free access to it.

Stage 2 Access to all printer menus

The factory - set password is resident from the first input. There is free access to all menus also after RESET or connection.

It is residual effect can be suspended until the next input of the correct password or reset by the input of a faulty code. In this way limited access to stage 2 is possible without password (e.g. printer is to be set by authorised person and must be available for further use on stage 1 subsequently).

PASSWORD OPERATOR Keep this information in a safe place!!!

Note If access to a protected menu is tried, the message: PERMISSION DENIED appears short - term. The display automatically returns to the main menu. No information appears on the input of a faulty password.

Selection

Select desired menu item in accordance with root menu.

By cursor keys <← →>for horizontal movement

and <↑ ↓>for vertical movement

Adjustment

Password input, return to main menu by <ENTER >, access to the respective menus is possible now

Status messages

Status messages in the ONLINE mode

The appearance of status messages is indicated by an signal.

Overlay / masking out of message in the display by <F9 >key

SINGLE START – 03

No material detected in single - start light barrier

Measure: If AUTO - SINGLE START device is installed:

Depress (F1) key to acknowledge status message
Insert material
Restart print by (F1) key Job is further processed, punch is re - initialised
Mask out operating status message by F9 key

NO MATERIAL – 05

Material end

Measure A

Depress (F1) key to acknowledge status message
Insert material, check and, in case, correct light barrier position
Restart print by (F1) key Job is further processed, punch is re - initialised
Mask out operating status message by F9 key

Measure B

Perform process "Adjustment of Material End - Parameter MATEND"

OVERHEAT – 06

Printhead Overheating

Measure

Integrate printing breaks

FOIL END – 07

Foil End

WITH THERMAL PRINT

Measure:

Make sure that program item "FOILMODE" is set to "NO"
F2 key - acknowledge error message
SWITCH OFF FOIL-END RECOGNITION
By <F9 >key return to main menu, select menu item, set "NO", by <ENTER >return to main menu
To operating status by <F9 >key
Restart of print by <F1>key Job is further processed; punch is re - initialised
Mask out operating status message by <F9 >key

WITH THERMAL-TRANSFER PRINT

Measure A:

Depress (F2) key to acknowledge status message
Insert foil
Restart print by (F1) key Job is further processed; punch is re - initialised
Mask out operating status message

Measure B:

Check spring plate adjustment at foil unwinding mandrel to ensure mandrel is caught on unwinding of foil

NO PUNCH FOUND – 08

No punch found, or three or more labels missing

Measure

Check print mask for punch definition
Make sure that correct material is inserted
Make sure that light barrier is clean
Check material guide and light barrier position

ROLL OPEN – 09

Pressing lever open

Measure:

Depress (F2) key to acknowledge status message
Close lever
Restart print by (F1) key Job is further processed punch is re - initialised
Mask out operating status message by F9 key

Status messages on connection

The appearance of status messages is indicated by a signal.

Overlay / masking out of message in the display by <F9 >key

EEPROM ERROR - 01

All parameters are adjusted to factory setting after acknowledgement

Measure

Prepare printout of parameter adjustments (sub menu MISC, menu item PARA)
Check parameters specific to the customer for their deviation from factory settings
Adjust parameters

RAMCHKSUM – 10

RAM-Card check-total error

Measure

Make sure that correct RAM card (spooler +logo) is plugged-in
Reformat card

Attention: All data are cleared!

ALLOCATION - 60

Memory allocation error

Measure

Disconnect and re-connect
Call customer service if error cannot be eliminated

Attention: Allow for at least ten seconds between disconnection and re-connection.

Status messages conditional on EASY PLUG

Overlay / masking out of message in the display by <F9 >key

All messages are accompanied by a signal and subject to automatic acknowledgement after two seconds.

IMMEDIATE COM – 20

False immediate command Result. Command is ignored

FORMAT COMMAND – 21

False formal command (between #ER and #0)

Result: Yet execution of print job

NO #ER COMMAND – 22

Format command without introductory #ER

Result: Yet execution of command

INVALID COMMAND – 23

Invalid command

Result: Command is ignored

LABEL SIZE – 26

Inadmissible size, or printing offset to punch

Result: Size of last format or last printing offset is kept

RANGE OVERFLOW - 27

Range overflow

Measure
Check whether figures exceed 65000, or formal positions exceeding maximum storage capacity are used

CHARSIZE - 28

Character, line, or logo not fitting into physical printing formal

Result
Characters fitting perfectly into the printing formal are printed only

Measure
Change positions accordingly

LOGO NUMBER – 29

Logo number already existing

Result
Former logo is not overwritten

Measure
First clear former logo,
or

Use new logo number

LOGO BUFFER - 30

Logo too large for logo buffer or format storage

USED LOGO - 31

Logo number not within address area (inadmissible logo number)

Measure

Check whether number smaller than 0 or greater than 255 was specified
Check whether selected logo number is occupied

RS232 ERROR – 24

RS232 Reception error

Measure A

Acknowledge by F2 key

Job is activated, but characters recognised as false are not used

Restart, i.e. yet execute print job by F1 key
Return to the main menu by F9 key

Measure B

Clear and retransmit job on operating level by <CTRL +C >
Check adjustments: BAUDRATE, PARITY, STOPBIT, DATABIT, HANDSHAKE 2.
Check for external influence
Check transmission line

BUFFER OVERFLOW – 25

Reception buffer overflow

Result

Interface switched inactive
Reception buffer cleared

Measure

Switch off acoustic signal by F3 key
Acknowledge by F2 key
Check transmission synchronisation (menu item HANDSHAKE in the menu PARA)

Status messages relating to disk drive

These messages are displayed directly!

FILENAME NOT FOUND – 70

No mask with name entered existing

Measure

Acknowledge by <ENTER >, check file names to be processed for their correct designation

DISK WRITE PROTECTED – 71

Floppy disk is write protected

Measure

Remove disk, close slide of square opening at lower side of disk, insert disk, and acknowledge by <ENTER >; display returns to main menu

Select menu item: SAVE and store by <ENTER >

DIRECTORY FULL / DISK FULL – 72

No storage capacity available for user data

Measure

Insert new, formatted disk and acknowledge by <ENTER >
Select menu item: SAVE and store by <ENTER >

DRIVE NOT READY – 73

No disk, or disk not inserted correctly

Measure

Insert disk and acknowledge by <ENTER >

NO ANSWER FROM FDC – 74

Defective disk drive

Measure

Call customer service; drive possibly not connected properly

DISK NOT USEABLE – 75

Formatting error

Measure

Try again to reformat disk; if result again negative insert new disk

TOO MANY FILES OPEN – 76

Admissible number of open files exceeded

Measure

Restart of system

FDC OPERATIO ABORT – 77

a) Inadmissible manual access to floppy disk or
b) Cable of Floppy disk drive connected in wrong orientation

Measure

for a) Insert disk again and acknowledge by <ENTER >
for b) Unplug the cable at the floppy drive, rotate it 180 degrees and plug it in again.

DISK ERROR – 78

Error on floppy disk

Measure

Acknowledge by <ENTER >and repeat last processing step; contact manufacturer, if negative

BAD DISK SECTORS – 79

Defect sectors at Disk (message arrives during formatting)

Note Disk can be used basically; it should not be used as destination disk when copying contents of disks, because maybe not all data intend to be copied can be memorised completely.

DISK DATA ERROR – 80

"FALSE" data at disk

Note Data of disk can not be read correct by the system.

Files which can be read at the menus: PRINT and DESIGN may show eventually later on errors during processing.

If fifes can not be read in, the disk has to be formatted again (loss of complete data).

Data exchange

Data exchange between printer and MVT III

Data can be exchanged between the printer and the software program MVT III.

This is possible if the printer is not directly selectable from the computer and these data are available on floppy disk.

Masks generated on the MVT III can be processed on the printer under certain conditions.

Procedure - Conditions

The mask to be processed on the printer is to be checked for its compatibility with the same before storage on floppy disk in the MVT III.

In the MVT III the mask must be adapted upon its Generation to the performance characteristics of the printer model on which the labels are intended to print (this is automatically ensured if this printer is selected during mask set up).

Masks with date field, matrix field, line, and column, field: sum document are not supported by the printer. These fields, 4 contained in masks, must be eliminated, or the function of these fields is suppressed, i.e. they are reset to normal fields; correct results cannot be warranted in this case.

There is, however, also the possibility to process masks generated on a OFFLINF: printer models (TTX 736 / 739) on a ONLINE printer model (TTX 706 / 709 or TTX 600) by the MVT III program.

Maintenance

Overview

Careful and regular maintenance will raise the performance and longevity of the printer.

Regular cleaning of the printhead is especially important. A clean printhead ensures high print quality and extended head life.

Periodically remove any deposits of paper, adhesive and ribbon from the feed roller and gap sensor.

Changing and cleaning the print head

Warning: **Unplug the printer before cleaning or changing the printhead!**

Caution: **Static electricity can destroy electronic components, including the printhead. Make sure you are properly grounded before servicing the printer.**
Wait at least 3 minutes after switching the printer "OFF" before disconnecting the printhead.
After changing the print head – the new resistor value has to be downloaded into the printer (see print head).

- Switch unit off and unplug the printer!
- Open head locking lever.
- Remove material and ribbon.
- Unscrew 2 knurled thumbscrews on the printhead holder.
- Carefully remove the printhead.
- Disconnect printhead plug. Wait at least 3 minutes after switching "OFF" the unit!
- Clean print head with dust-free cloth and Avery Dennison cleaning fluid. Metal objects must never get into contact with printhead surface! Never use knives or o objects with sharp edges for cleaning. Be aware of static electricity.
- Reconnect the printhead plug.
- Fasten the printhead using the 2 knurled thumbscrews.
- Re-insert the ribbon and labels.
- Lower the head locking lever.

Cleaning the feed roller

Warning: Unplug the printer before cleaning!

- Switch unit OFF and unplug the power cord.
- Remove material and ribbon.
- Clean print roller with a dust-free cloth and Avery Dennison cleaning fluid. Never use knives or objects with sharp edges for cleaning.

Cleaning the gap sensor

Use compressed air to clean the gap sensor.

If the sensor is extremely dirty, use a dust-free cloth and Avery Dennison cleaning fluid.

Cleaning the material and ribbon guides

Contaminated surfaces cause poor feeding and reduce print quality. Regularly clean the material and ribbon guides.

Tag / Label material

The printer may be used for direct thermal and thermal transfer printing.

Use Avery Dennison tags and labels to ensure high quality print.

If the tag/label material is extremely abrasive, the printhead will wear faster than usual.

The width of the ribbon should exceed the width of the tag/label material. This protects the printhead from unnecessary wear.

Ribbon

Use Avery Dennison ribbon to ensure high quality print.
Inferior quality ribbons reduce printer performance, print quality, and printhead life.

Service

Attention: Unplug mains lead before starting any service !

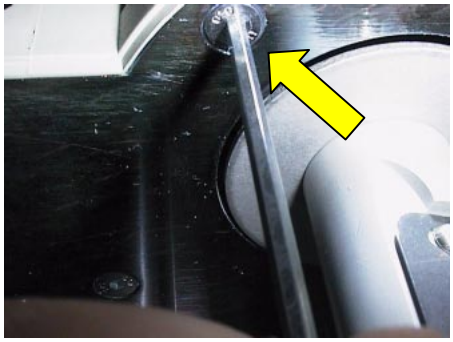
Rear housing

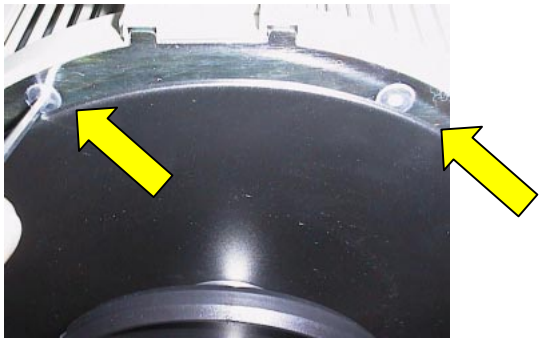
- loosen 3 screws (allen key 2.5)
  1 pcs upper, left, 2 pcs up (covered half by the disc of material unwinder)

- tip housing backwards, bend left side slightly away.
  Following the housing may be removed completely backwards

- for releasing the cable of the operators panel lift plug 3 mm away from the board

- mounting in reverse order
  Connection of cable: Plug in the cable with the contact side forward and press plug





Dismount Mechanics / Electronics from base plate

This step is necessary when doing services at:

- feed roller, material and ribbon guidance, ribbon un- and rewind, print head pressure axle, printhead fixation and belt

- loosen 4 screws at lower side of base plate and remove complete block upwards

Dismount inner, vertical base plate

- remove pressure lever,

- dismount connection of support axle/feed roller

- remove print head fixation screws (2 pcs)

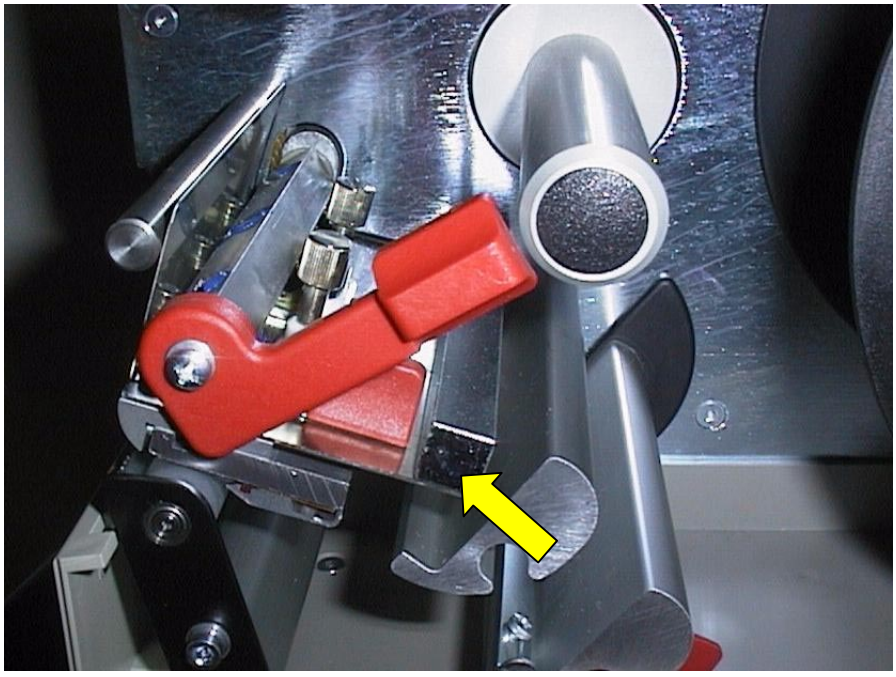
- remove grounding cable

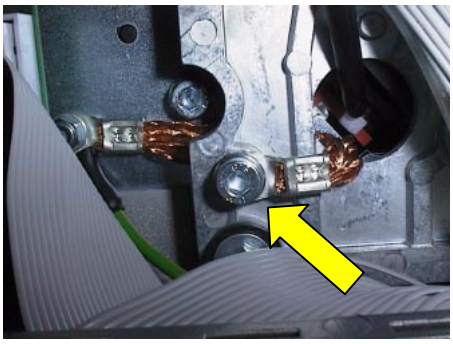
- loosen 4 screws and draw inner base plate backwards

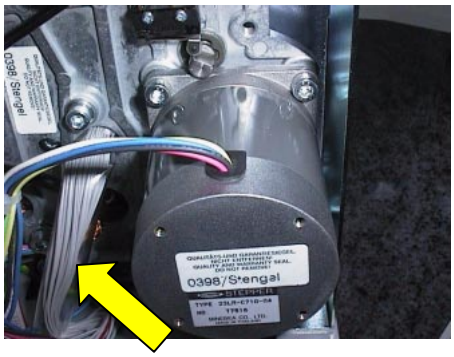
- disconnect cables to print head, gap sensor and micro switch (pressure lever) off the board

- remove print head carrier plate complete with square fixation axle (1 screw from inner side)

- remove ribbon end sensor





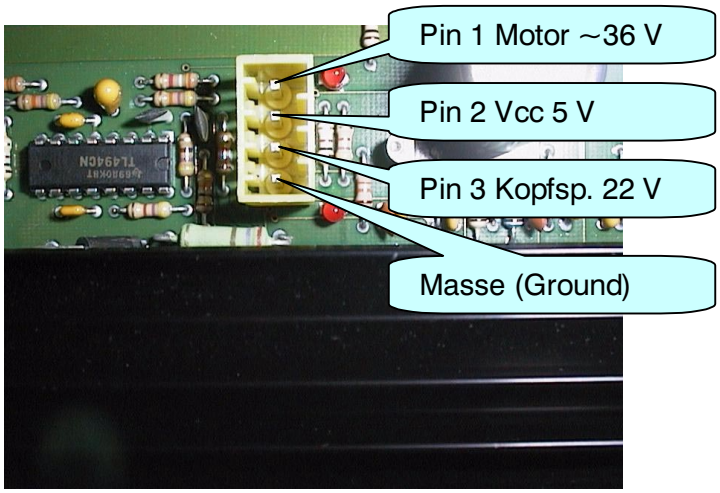


Remove board

For the TTX 300 board with the number 99670-xx-0 are used (different to the OFFLINE board number 99671-xx-0 the IC's 13,16,7 and 6 are not placed). Older versions of the TTX 300 may use different board types.

- unplug cables
- pull board from the plastic snapper (1pcs), loosen 2 screws from metal angle and pull up the board
- check new board to voltage adjustment

Pin 1	voltage to motor ~36 V (not adjustable)
Pin 2	Vcc 5 V (not adjustable)
Pin 3	voltage to print head (adjust with Pot P1 and Pot RV6 to 22V)
Pin 4	GND

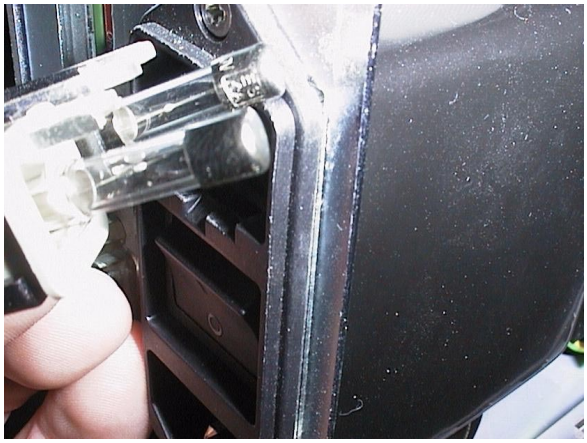


Transformer

- for mounting / dismounting fix the inner metal bolt with a pair of pliers in order to avoid twisting

Power supply (input filter)

- before switching on the unit after exchange of the power supply check setting of voltage and the corresponding fuses and correct if necessary



Fuses of power supply and board

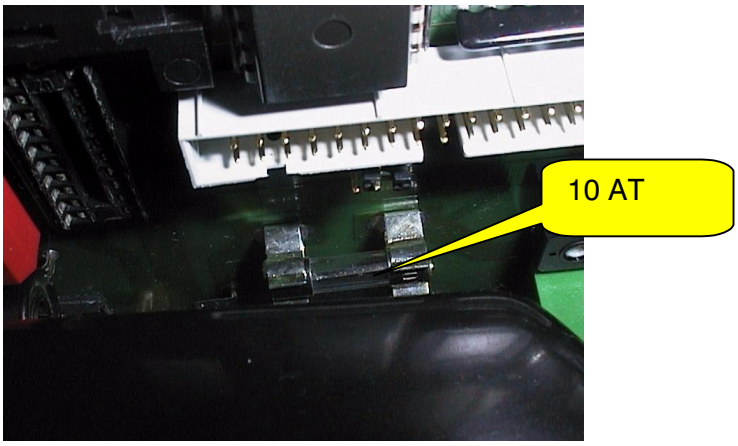
The fuses can be replaced by removal of the fuse element

Mains voltage set up is possible by rotating the insert

Attention : Unplug mains power plug before checking / changing mains voltage or fuses.

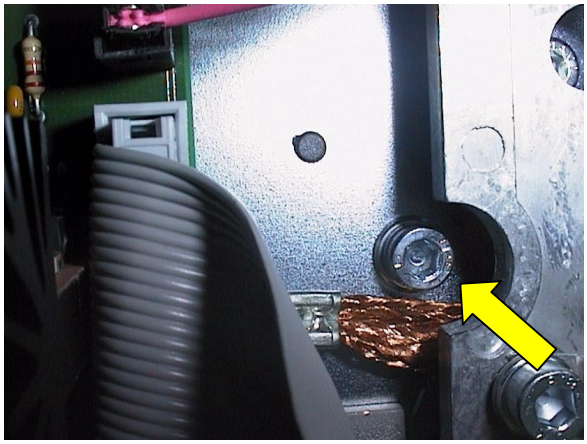
Power supply 2 x T 2A at 220-240 V
2 x T 4A at 110/115 V

Board 1 x T 10A at bracket



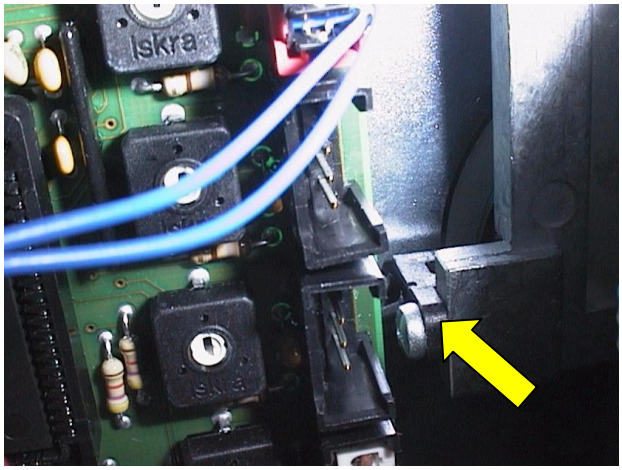
Gap / Material Sensor

- remove complete material guide (1 screw inner side)
- remove gap / material sensor slide from material guidance
- for setting see description of sensor test “CK01”



Sensor / Ribbon unwinder

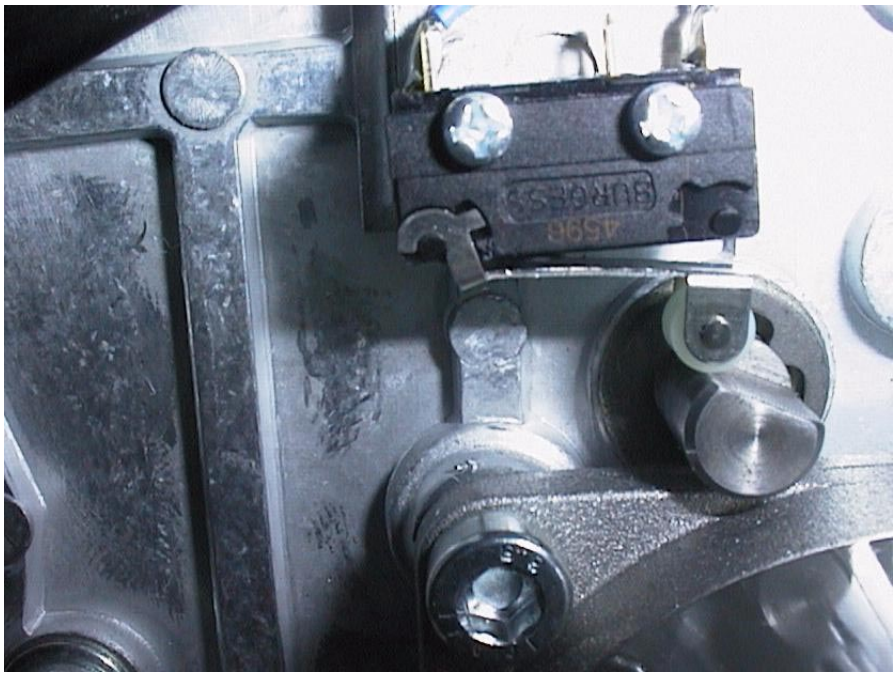
Accessible after removal of board, twist timing wheel which must not contact sensor.
To check this function see description of sensor check “CK01”.



Micro switch / print head pressure lever

Accessible after removal of transformer. Screw micro switch so that the lever can still be moved 5 –10 mm in direction of closing after the contact has been reached (clicking noise).

To check this function see sensor check “CK01”.



Motor, round belt and feed roller

Accessible after dismounting the inner, vertical base plate and printhead fixation.

- the motors cable guides up and direction forward around the motor and than below it. Please regard this routing, otherwise the housing will not fit anymore
- between feed roller and motor a gap of 1 mm is necessary
- perform status printout “STA4” after mounting a new feed roller

Print head

To adjust the optimal print quality the resistance of the print head has to fit with the adjustments of the board itself.

Action: Adjust Pot P1 to the maximum (clockwise until block)

Action: Adjust with Pot RV6 a value of 22 V – measured between Pin 4 (GND) and Pin 3 (head voltage)

Send the head resistance value **via Easy Plug command** to the printer. To do so, copy the command line – see example – to a text file and send the file to the printer, using the MS-DOS surface. The DATA LED will blink one time.

#HRn (n 0 resistor of the print head written on the head)

Example: Head resistance - 502 Ohm #A1#HR502#G

Attention: To send a wrong value can result in bad print quality or damaging the head.

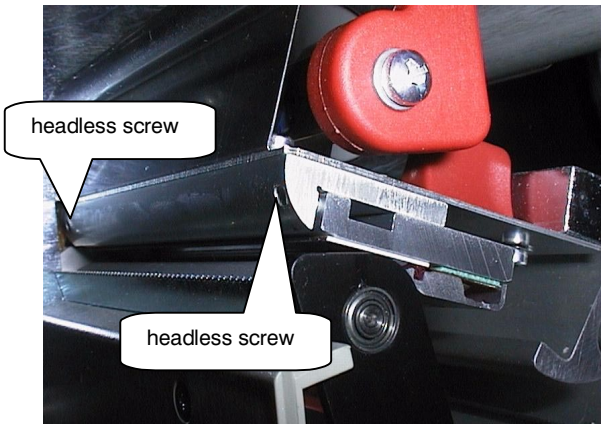
Proceed as follows, to set the printhead via parameter menu:

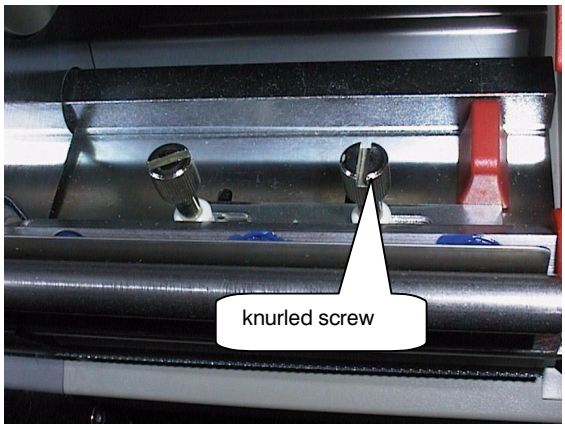
Key	**Display**
press → until	PASSWD
Type in „Montage“ and acknowledge by pressing the Enter button	
press → until	MISCELL
press ↓ until	PRINTER STAT
press → until	PRINTER TEST
press ↓ until	TEST DISK
press → until	SERVICE PARA
Press Enter button, until	HEAD RESIST
Set value for printhead resistance by pressing the ↑ or ↓ button, respectively.	
Press the Enter button.	

To check your work do status print out STA1 after you have changed the print head (or the board) .

Print head mounting and adjustment

To adjust the print head use the two headless screws at the front of the print head mounting. The two screws are used to fine adjust the print head to an optimum of print quality (therefore use the status print out STA1) .





- insert media and ribbon
- open the knurled head screws slightly
- take care of an optimal media guiding – otherwise the position grid on the test label will not be correct
- start status print out and adjust with the head less screws the best print out
- check your work by using the status print out again. The pattern should be clear on both sides of the print out – as well the angle should be 90 degrees.
- finishing the adjustment – secure the headless screws with security paint and fix the knurled screws again

Head pressure

The adjustment for the head pressure is done by moving the three spring loaded screws mounted in the axle above the print head spring blades. To adjust the pressure move the small label device to the outer side (wide media)

To measure the pressure – we are using the friction supplied to a grease free spring blade (thickness 0.1 mm) and a spring balance of 50 N.

- put in grease free backing paper between the spring blade and the print head to take care not to damage the print head
- for the first step move the spring blade to the inner side of the print axle and adjust a value of 18 – 20 N (value before the blade is starting to move)

• second step move the blade to the outer side of the print axle and repeat step one – but adjust a value of around 16 N only

•do status print out to control your work

• move the small label device into the inner position and check with status print out that only the half of the print is done

Ribbon un- and rewind

Accessible after removal of transformer.

• put printer side wards before dismounting in order not to loose or jam the shims at the inner end of the unwinder axle. This would lead to a leaning position of the shaft.

Note: There are no shims at the ribbon rewinder

Brake value of ribbon unwind

• measured with a cardboard core (wall thickness 3.5 mm) and spring balance 5 N

setting value: 3.6 – 3.8 N (measured in unwind direction)

Sensor check routine - OFFLINE

Starting out of the parameter menu : SENS – MISC – where the function of the sensor is shown (display <0> or <1>) each sensor can be selected with the keys <↑ ↓>.

Gap sensor low – high power

Adjust – using pot RV3 a value of "2" (shown in the display) by having backing paper in the sensor, with less light transmitted "3" is as well OK. Remove backing paper out of the sensor, select the menu parameter MATEND – accept by depressing <ENTER> and <ENTER> again.

The value is shown in the display.

Attention: If a value higher then "6" is shown – change the sensor.

Foil end sensor

Adjust the pot in the sensor wire to maximum - and use pot RV4 on the main board to adjust the maximum difference between open and blocked sensor.

Gap reflex sensor

Optional sensor used for reflective marks.
Adjust the value shown in the display to “1” with no paper in the sensor – therefore use pot RV2. With paper a value of “3” should be shown – with the black mark below the sensor a value of at least “4” should be displayed.

Single Start Sensor

Adjustment not necessary

Optional Sensor

not used

Remove to main menu by depressing <ENTER>

Assembling Accessory

Single Start Switch

If the optional single start switch should be used an additional cable must be assembled to the printer.

Connect the cable to J6 at the main board the other end fits into the hole at the rear side of the printer (older model of printer may not have this hole at the rear side).

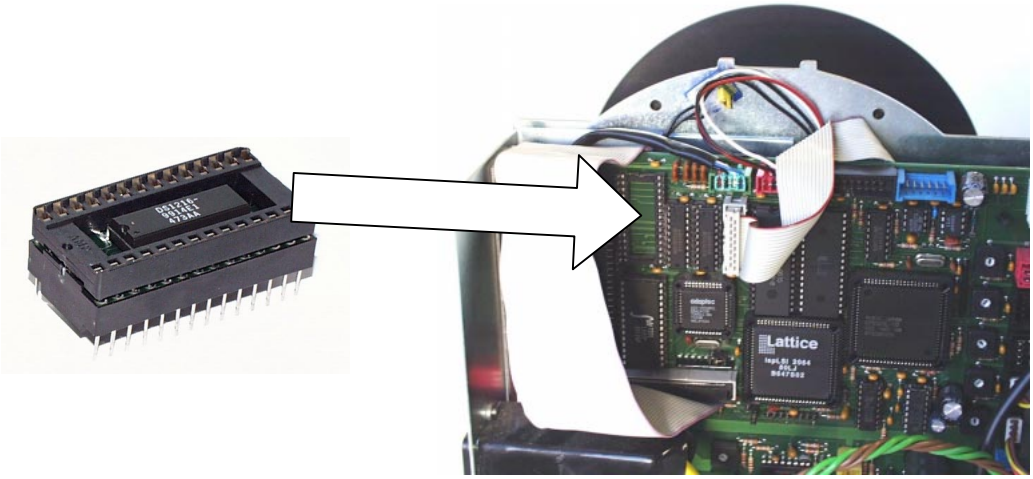
To activate the single start switch send the Easy Plug command #Dn

n =0 switch OFF

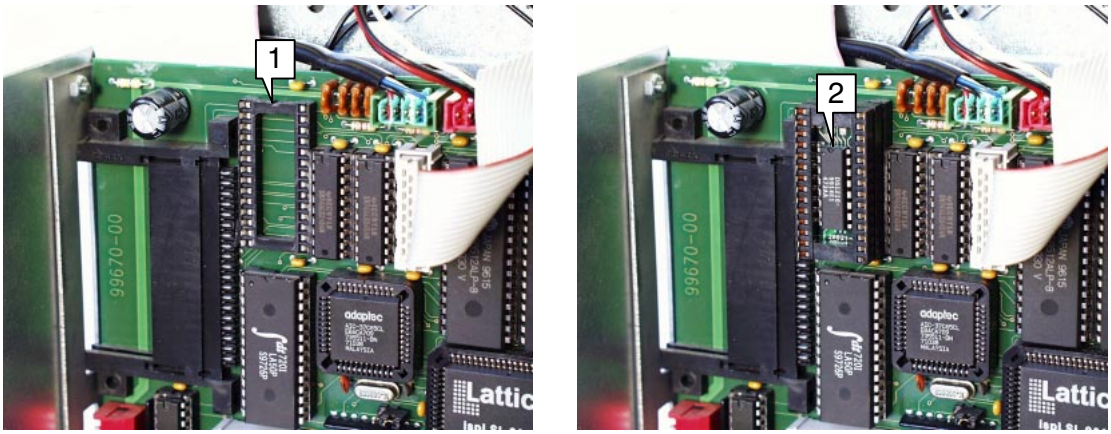
n =1 switch ON

Real-time clock

1. Remove the printer housing.
2. Plug the real-time clock (RTC) to the socket. Mind the correct position! – Both marks at the socket and at the RTC respectively have to face each other.



Plug the RTC (left side) to the socket (right side) on the board.



Both marks on the socket (1) as well as on the RTC (2) have to face each other.

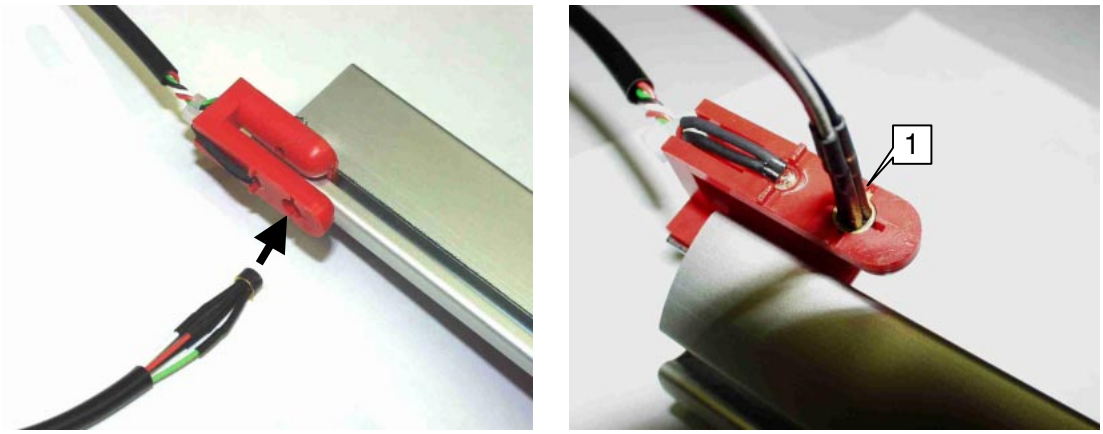
3. Call parameter PARA / FACTIN to make a factory reset; only afterwards, the printer will recognize the RTC.

4.Call parameter PARA / CLOCK, to set the current date and time.

Reflex sensor

Die Reflexlichtschranke kann nachträglich zusätzlich zur Durchlichtschranke in die Lichtschrankengabel eingeklebt werden (Klebstoff: Loctite 460). Gehen Sie dabei so vor, wie es die Abbildungen zeigen.

The Reflex sensor



Glueing in the reflex sensor. Right side: The little nose (1) at the sensor must fit into the notch of the light barrier fork.

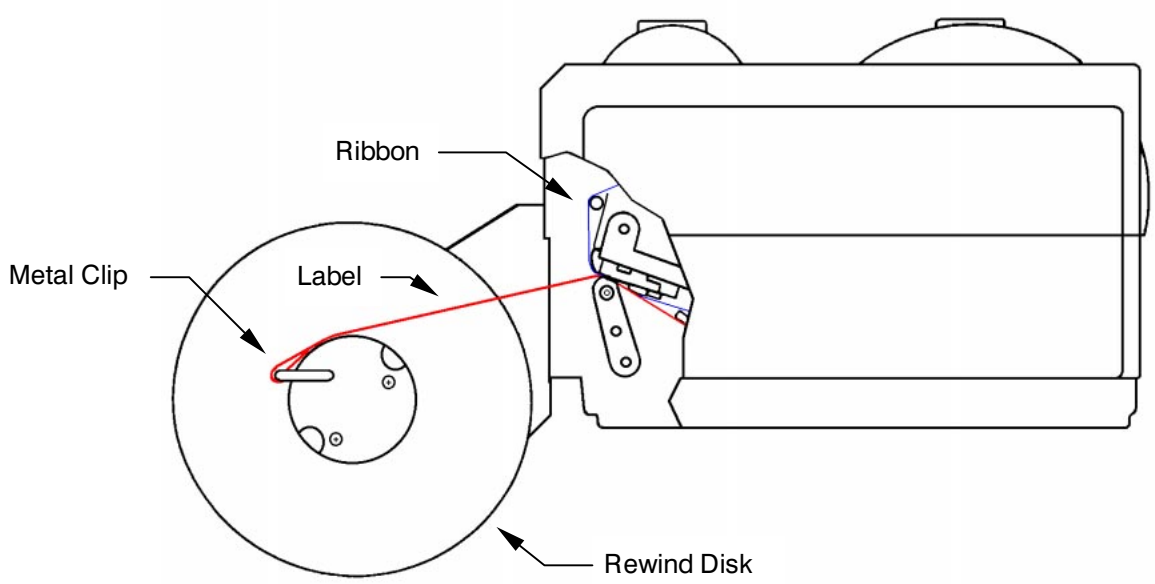
Appendix

Option: Rewinder

- The rewind disk has 2 positions: raised and lowered. Make sure the disk is in the raised position. If necessary, push up on the disk to adjust it.

- Insert material according to the following diagram. Fasten the labels to the rewind using the metal clip.

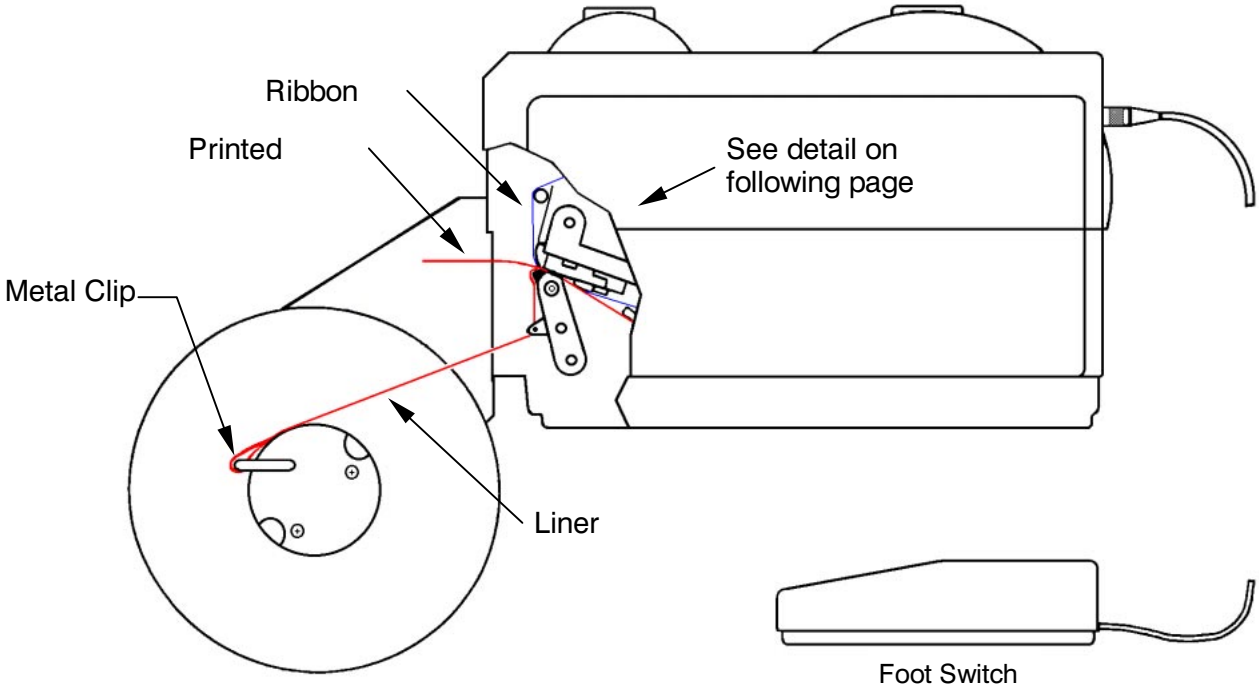
- Remove rewound materials periodically by pulling out the metal clip and sliding the material off the shaft.



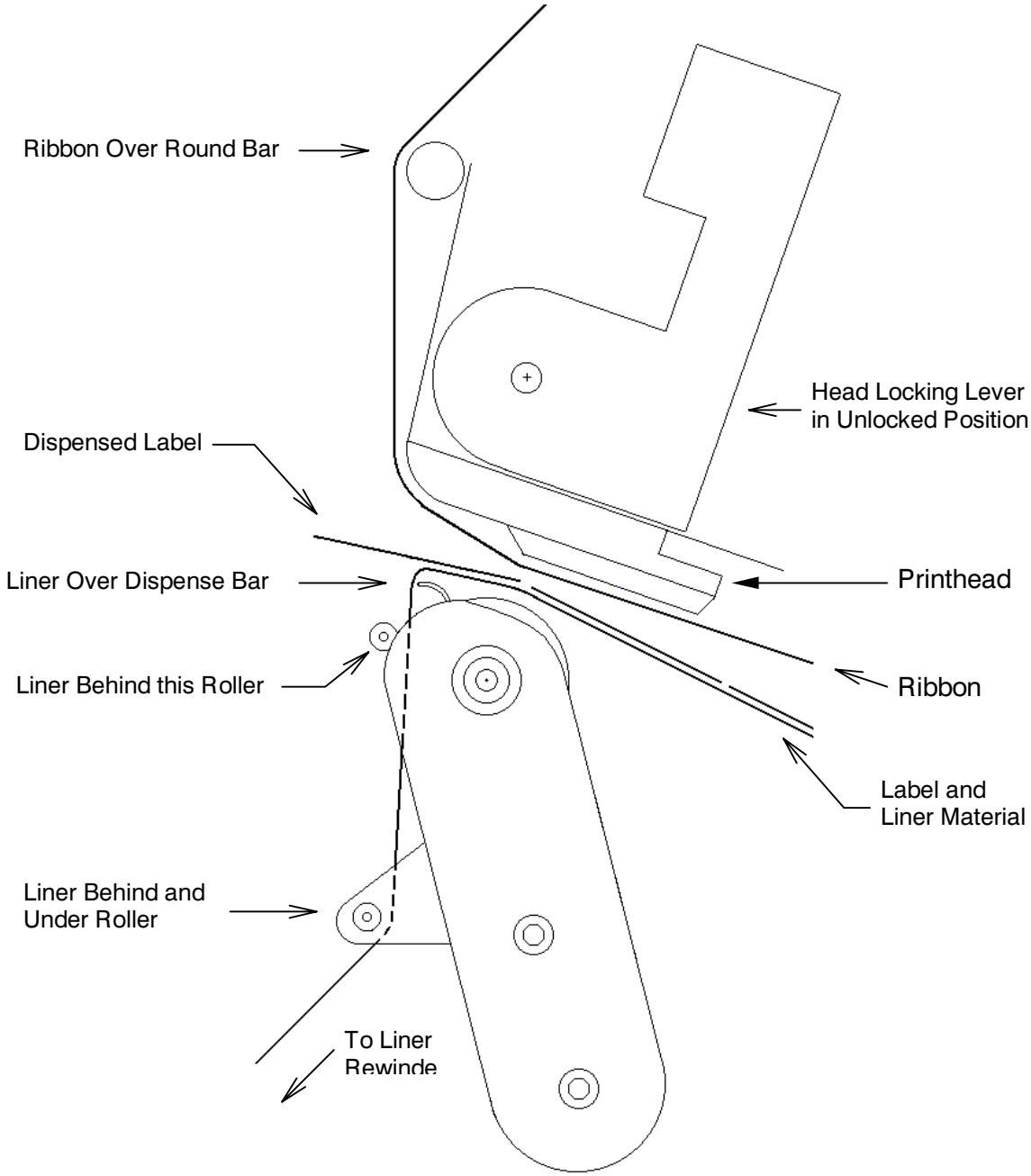
Option: Dispenser

- Connect the foot pedal to the plug on the back of the printer.
- The rewind disk has 2 positions: raised and lowered. Make sure the disk is in the lowered position. If necessary, push down on the disk to adjust it.
- Remove enough labels to expose 1 ft / 40 cm of backing paper.
- Thread the liner according to the following diagrams. Tighten liner by rotating the rewind disk.
- Each activation of the foot pedal will dispense one label. One or more blank labels may dispense before printed labels are available.
- Remove rewound liner periodically by pulling out the metal clip and sliding the liner off the shaft.

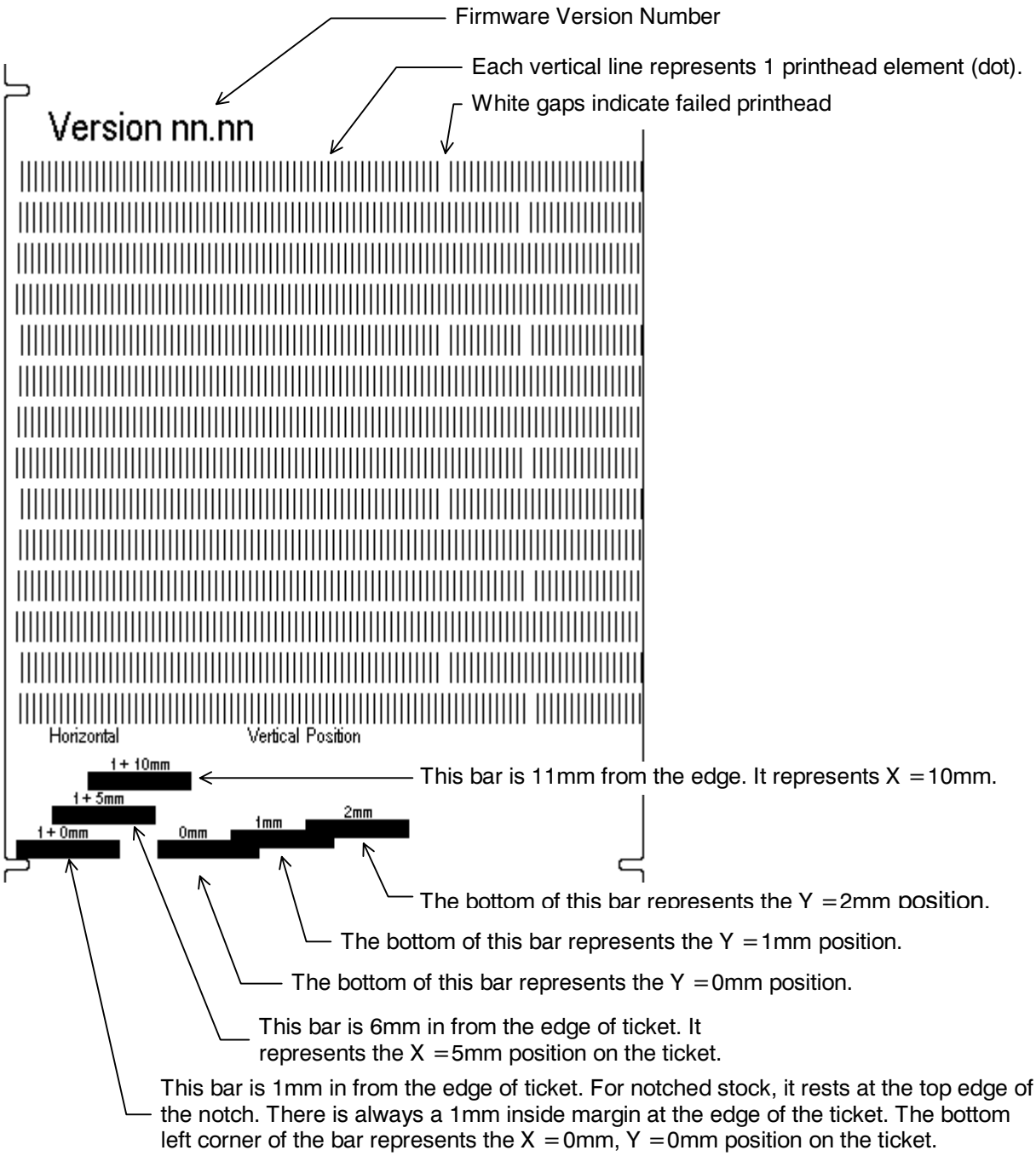
Note: By defining the Punch Offset in the label format, the position of the label at the dispensing edge may be varied. The length defined via Punch Offset must be regarded as a non-printing area.



Dispenser threading detail



DOT 1 and DOT2 printout


Firmware Version Number
Each vertical line represents 1 printhead element (dot).
White gaps indicate failed printhead
Version nn.nn
Horizontal
Vertical Position
1 + 10mm
1 + 5mm
1 + 0mm
0mm
1mm
2mm
This bar is 11mm from the edge. It represents X = 10mm.
The bottom of this bar represents the Y = 2mm position.
The bottom of this bar represents the Y = 1mm position.
The bottom of this bar represents the Y = 0mm position.
This bar is 6mm in from the edge of ticket. It represents the X = 5mm position on the ticket.
This bar is 1mm in from the edge of ticket. For notched stock, it rests at the top edge of the notch. There is always a 1mm inside margin at the edge of the ticket. The bottom left corner of the bar represents the X = 0mm, Y = 0mm position on the ticket.

Bar codes, Lines

MVT 2	MVT 3	Easy Plug	
EK	EAN 8	0	CODE EAN8
EL	EA13	1	CODE EAN13
UA	UPCA	2	CODE UPCA
93	C93	3	CODE 93
5 I	2/5 I	4	CODE 2/5 INTERLEAVED
5 M	2/5 M	5	CODE 2/5 MATRIX
5 5	2/5 5	6	CODE 2/5 5 STRICHE
39	C39	7	CODE 39

MVT 2	MVT 3	Easy Plug	
CB	CB	8	CODE NW7 (CODABAR)
UE	UPCE	9	CODE UPCE
E2	E2	10	CODE ADD ON 2
E5	E5	11	CODE ADD ON 5
IT	ITF	12	CODE ITF
-	C128	13	CODE 128
-	MSI	14	CODE MSI
-	E128	15	CODE EAN128

LINIEN & RECHTECKE

Linientyp in unterschiedlichen Dicken

Spacing konstant oder proportional bei Änderung der Liniendicke

Typ 0		
Typ 1		konstant
Typ 2		konstant
Typ 3		konstant
Typ 4		proportional
Typ 5		proportional
Typ 6		proportional
Typ 7		proportional
Typ 8		konstant
Typ 9		konstant
Typ 10		konstant
Typ 11		konstant
Typ 12		konstant

BEISPIELE

Linientyp:	8
Liniendicke:	10
Linienlänge:	30
Drehung:	0°

Linientyp:	5
Liniendicke:	2.5
Rechteckbreite(x):	40
Rechteckhöhe(y):	10
Drehung:	90°

Linientyp:	3
Liniendicke:	0.5
Rechteckbreite(x):	30
Rechteckhöhe(y):	10
Drehung:	0°

Linienyp:	0
Liniendicke:	3
Rechteckbreite(x):	30
Rechteckhöhe(y):	10
Drehung:	0°

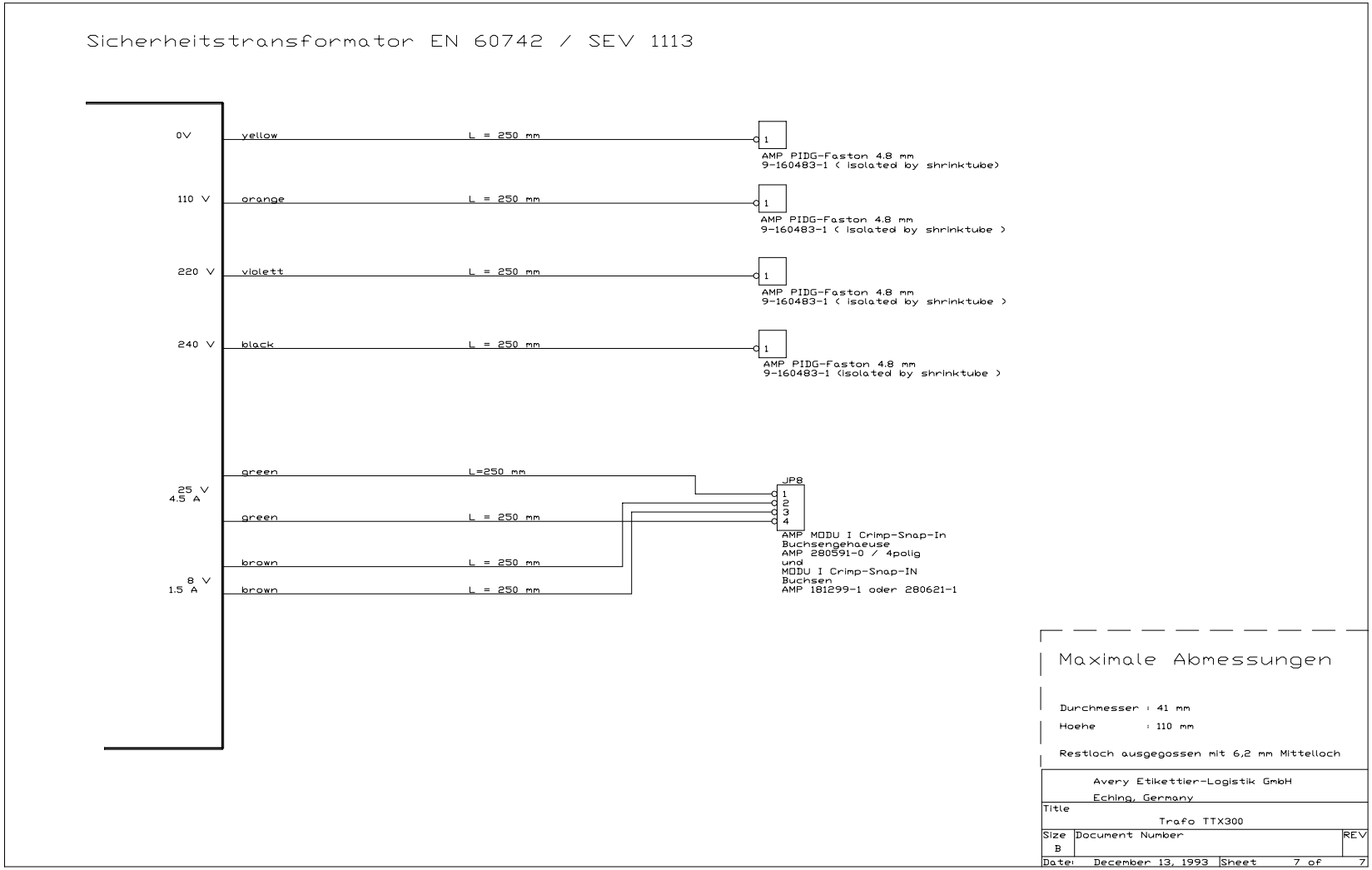
Vorschubrichtung

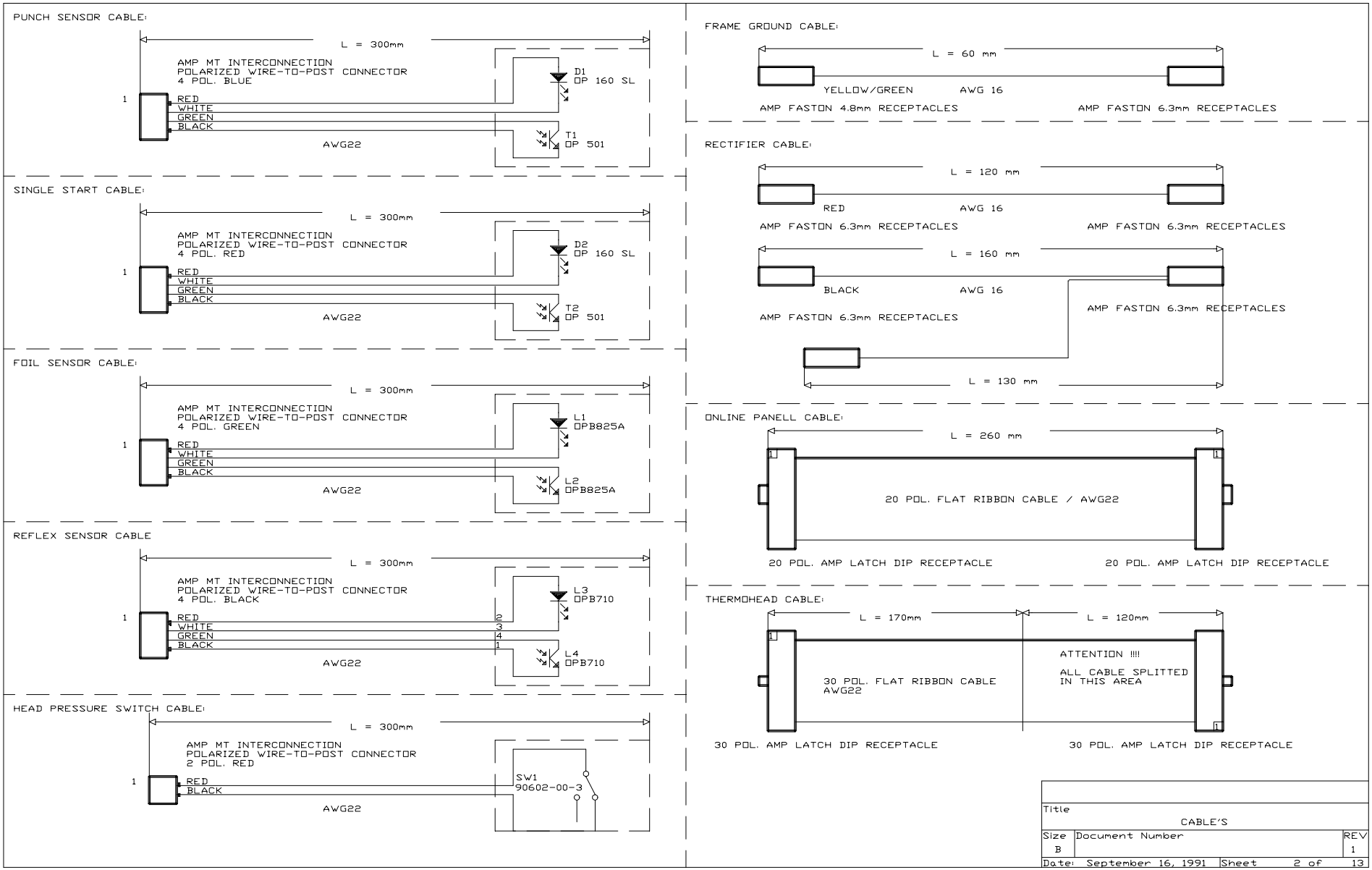
Technical Specification

Print technology	Thermal and Thermal transfer with Thinfilm print head
Resolution	7,56 d / mm – standard
Print width	40 to 105,6 mm
Emulation	Easy Plug
Print speed	100 mm/sec
Interface	Serial Port RS 232
Cards	1 slot for RAM card or PROM card up to 128 KB
Memory	512 KB dynamic RAM
Print ratio	100 % 1:1
Gap recognition gap dimensions	Self-initialising gap sensor with 0-12 mm variable adjusting range, length of punch : 0.8 to 14 mm, width of punch : min. 4mm Reflex marking sensor (only via NISTAN with 2-12 mm variable adjusting range Marker length : 4 mm width : min 10 mm
Fonts	17 fonts including OCR-A and OCR-B
Character modification	Magnification in X/Y direction up to factor 8 Rotation 90, 180, 270, 360 degree
Barcodes	EAN 8, EAN 13 with ADD ON 2 and 5, UPC-A, UPC-E, Code 39, Code 93, Code ITF, Codabar, Code 128, Code 2/5M, Code 2/5I, Code 2/5 % bar, EAN 128
Barcode Modification	Magnification in x-direction up to factor 8 in Y-direction from 1 to 100 mm rotation 90, 180, 270, 360 Grad
Graphics	Download is supported

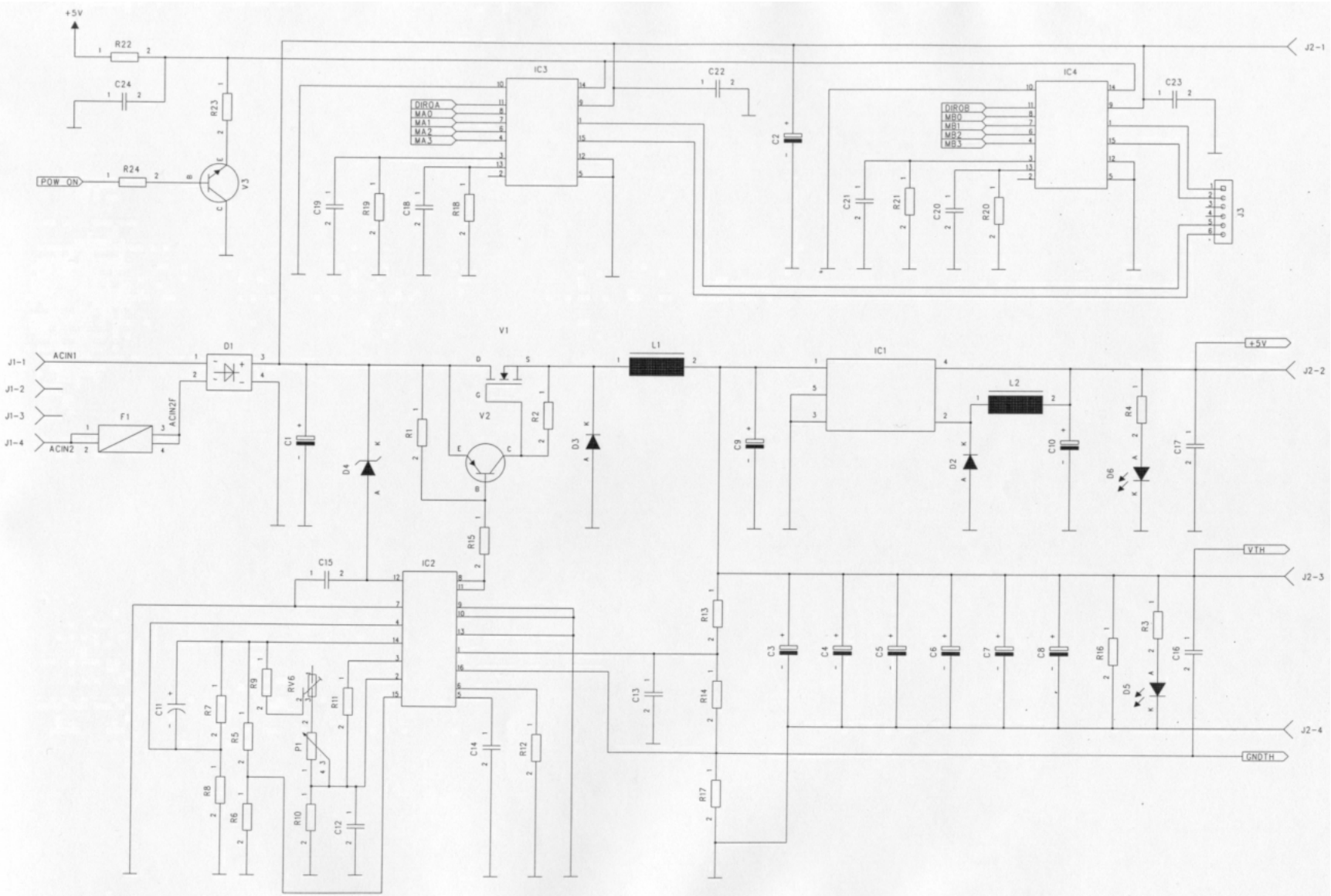
Graphic Modification		Magnification in X/Y direction up to factor 8 Rotation 90, 180, 270, 360 degree	
Material stock		width of media: Inner roll diameter:	110 mm 1.5 “, 2”, 3”, 4”
Media Material		Self adhesive, plastics and card board compatible to Thermal and Thermal transfer print with a weight of 70 up to 180 gr/sqm and a thickness of 0.05 up to 0.25mm	
Label size	width:		40 – 110 mm
		length:	5 to ~350 mm
Ribbon		Outer diameter:	max. 80 mm
Electric specification		110, 220, 240 Volt +/- 10% at 48/63 Hz	
Power consumption		230 VA	
Environmental Specification		Operating temperature: Storage temperature: Humidity:	+5 to +35 degree C -20 to +70 degree C 45 to 75% not condensing
Noise emission		<75 dbA	
Weight		8,5 kg	
Dimensions	245x242x350 mm (WxHxD)		
Construction		Compact and light weight construction in especially shielded housing, all mobile axles pivoted, open assembly of parts and components for easy operating and service	

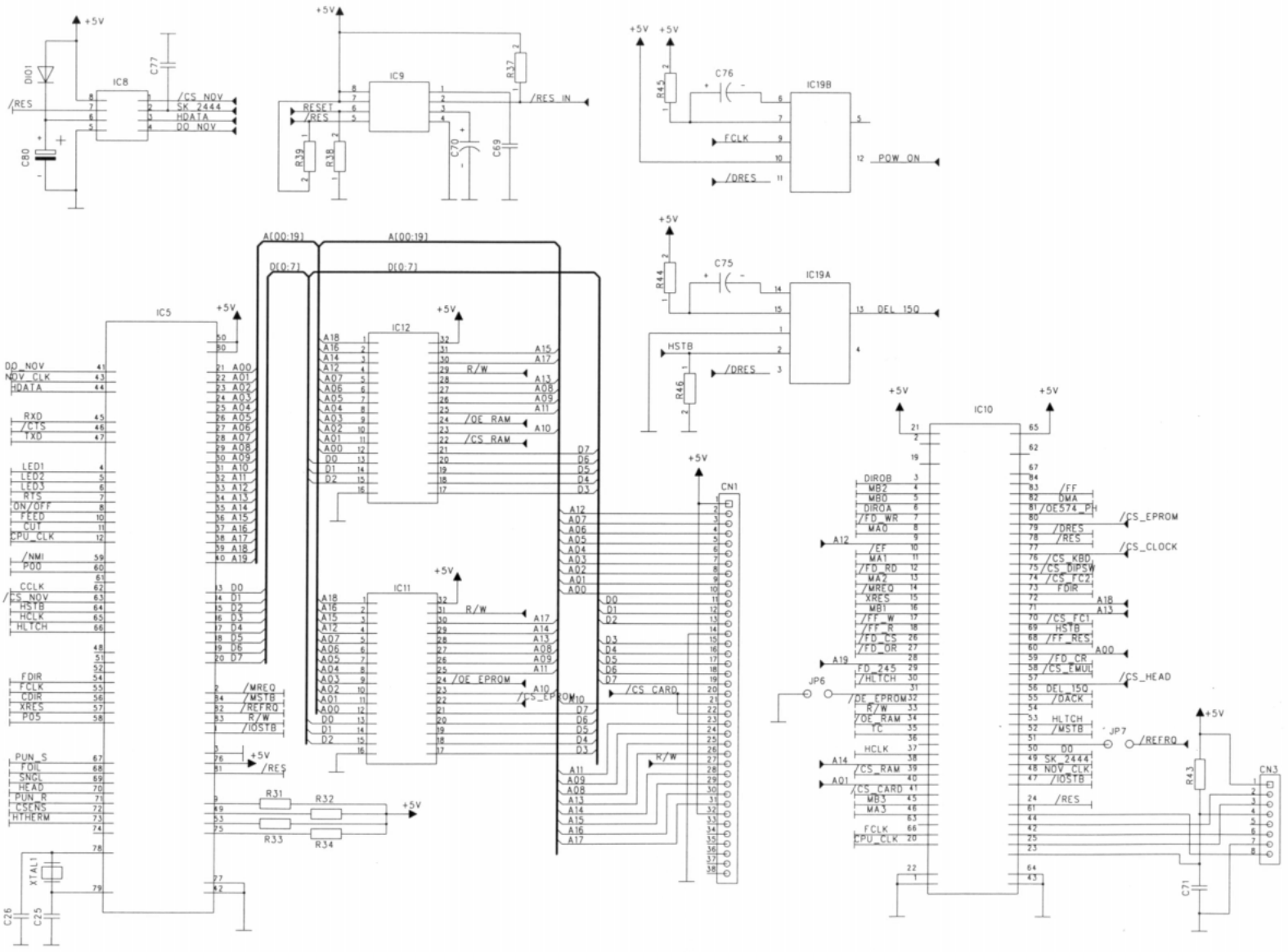
Wiring

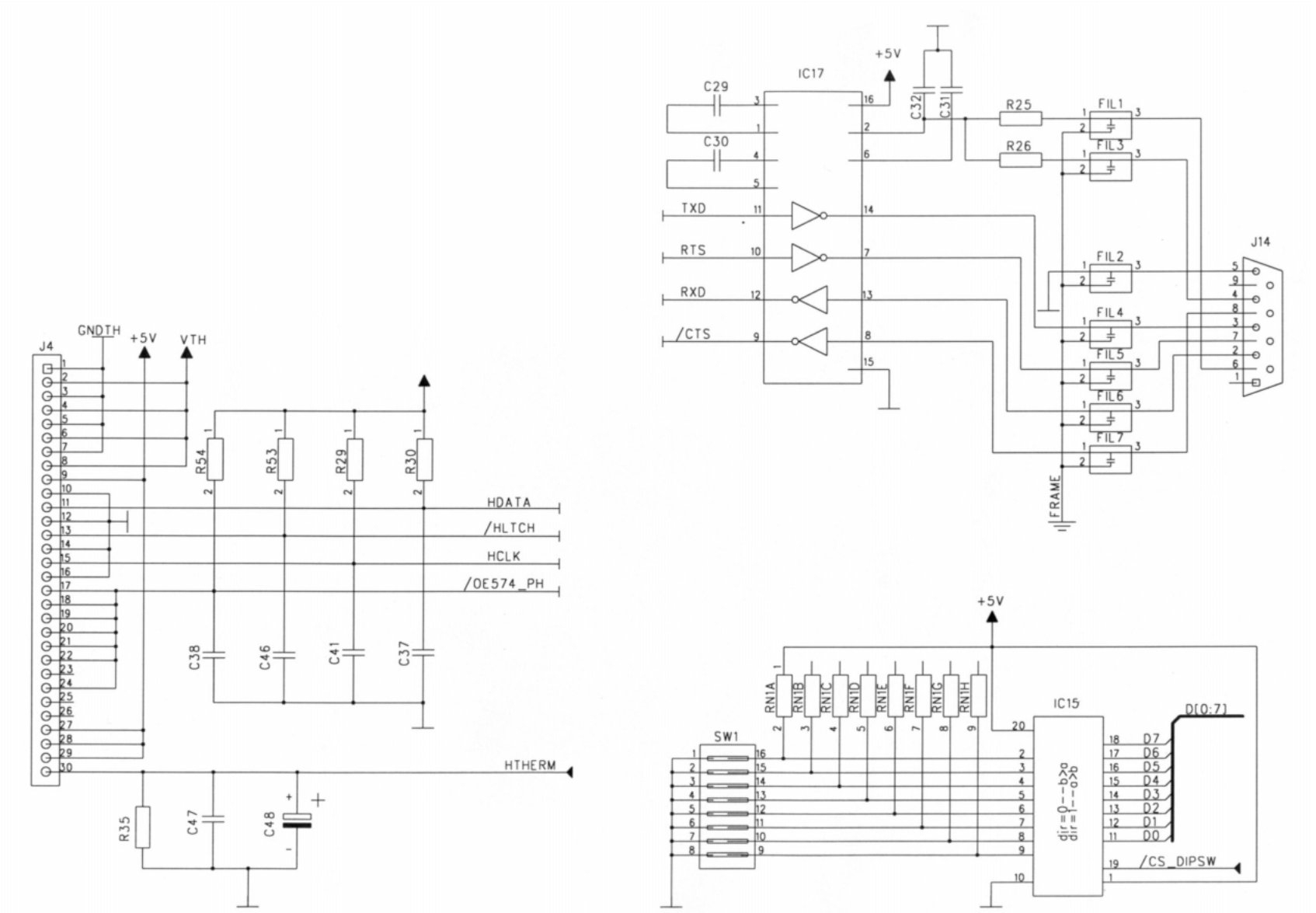

Sicherheitstransformator EN 60742 / SEV 1113
0V
yellow
L = 250 mm
1
AMP PIDG-Faston 4.8 mm
9-160483-1 (isolated by shrinktube)
110 V
orange
L = 250 mm
1
AMP PIDG-Faston 4.8 mm
9-160483-1 (isolated by shrinktube)
220 V
violett
L = 250 mm
1
AMP PIDG-Faston 4.8 mm
9-160483-1 (isolated by shrinktube)
240 V
black
L = 250 mm
1
AMP PIDG-Faston 4.8 mm
9-160483-1 (isolated by shrinktube)
green
L=250 mm
25 V
4.5 A
green
L = 250 mm
JP8
1
2
3
4
AMP MODU I Crimp-Snap-In
Buchsengehaeuse
AMP 280591-0 / 4polig
und
MODU I Crimp-Snap-IN
Buchsen
AMP 181299-1 oder 280621-1
brown
L = 250 mm
8 V
1.5 A
brown
L = 250 mm
Maximale Abmessungen
Durchmesser : 41 mm
Hoehe : 110 mm
Restloch ausgegossen mit 6,2 mm Mittelloch
Avery Etikettier-Logistik GmbH
Eching, Germany
Title
Trafo TTX300
Size
B
Document Number
REV
Date: December 13, 1993
Sheet 7 of 7

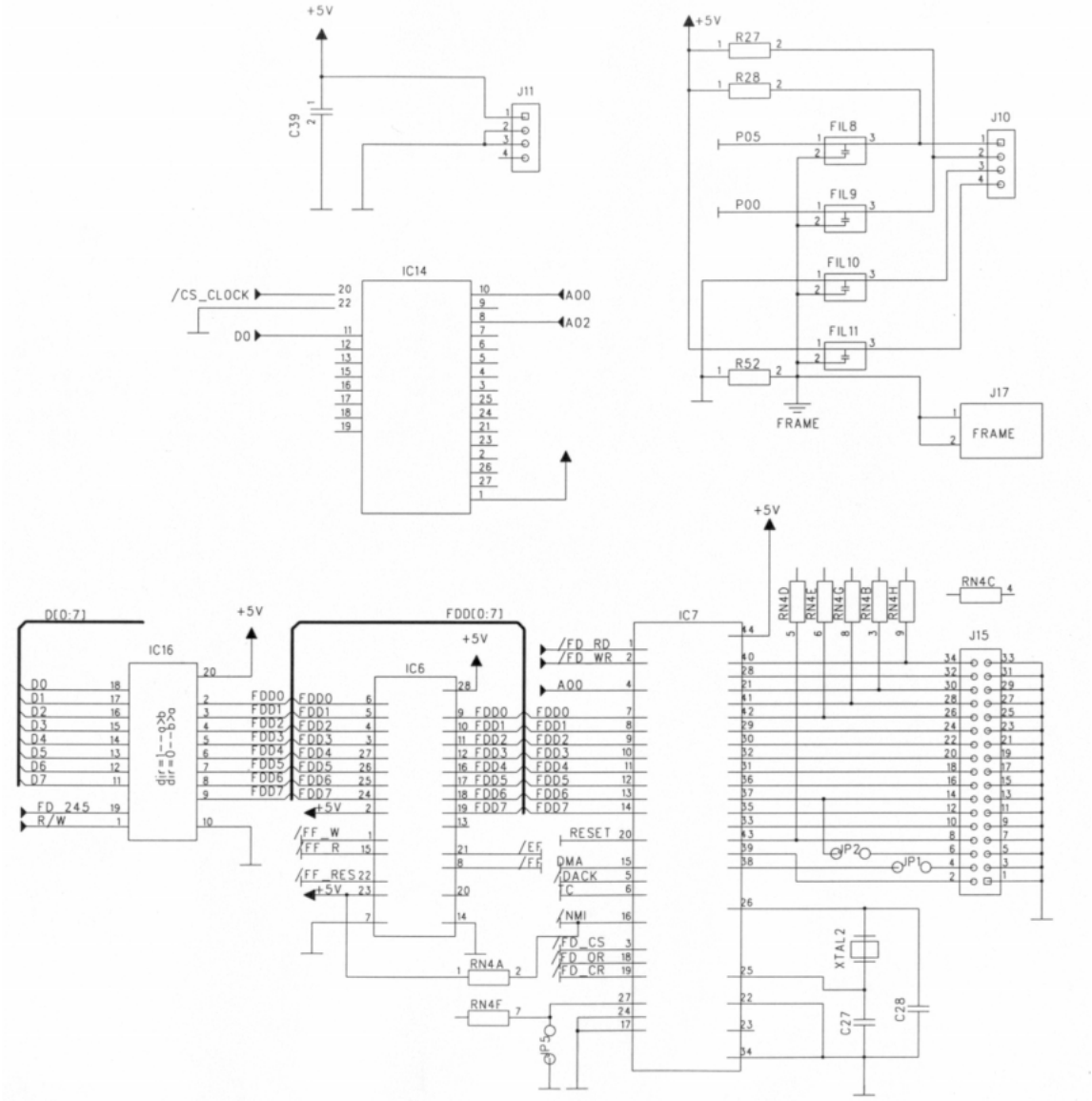

PUNCH SENSOR CABLE:
L = 300mm
AMP MT INTERCONNECTION
POLARIZED WIRE-TO-POST CONNECTOR
4 POL. BLUE
1
RED
WHITE
GREEN
BLACK
AWG22
D1
OP 160 SL
T1
OP 501
SINGLE START CABLE:
L = 300mm
AMP MT INTERCONNECTION
POLARIZED WIRE-TO-POST CONNECTOR
4 POL. RED
D2
OP 160 SL
T2
OP 501
FOIL SENSOR CABLE:
L = 300mm
AMP MT INTERCONNECTION
POLARIZED WIRE-TO-POST CONNECTOR
4 POL. GREEN
L1
OPB825A
L2
OPB825A
REFLEX SENSOR CABLE
L = 300mm
AMP MT INTERCONNECTION
POLARIZED WIRE-TO-POST CONNECTOR
4 POL. BLACK
2
3
4
1
L3
OPB710
L4
OPB710
HEAD PRESSURE SWITCH CABLE:
L = 300mm
AMP MT INTERCONNECTION
POLARIZED WIRE-TO-POST CONNECTOR
2 POL. RED
SW1
90602-00-3
FRAME GROUND CABLE:
L = 60 mm
YELLOW/GREEN
AWG 16
AMP FASTON 4.8mm RECEPTACLES
AMP FASTON 6.3mm RECEPTACLES
RECTIFIER CABLE:
L = 120 mm
RED
AWG 16
AMP FASTON 6.3mm RECEPTACLES
AMP FASTON 6.3mm RECEPTACLES
L = 160 mm
BLACK
AWG 16
AMP FASTON 6.3mm RECEPTACLES
AMP FASTON 6.3mm RECEPTACLES
L = 130 mm
ONLINE PANELL CABLE:
L = 260 mm
20 POL. FLAT RIBBON CABLE / AWG22
20 POL. AMP LATCH DIP RECEPTACLE
20 POL. AMP LATCH DIP RECEPTACLE
THERMOHEAD CABLE:
L = 170mm
L = 120mm
ATTENTION !!!!
ALL CABLE SPLITTED
IN THIS AREA
30 POL. FLAT RIBBON CABLE
AWG22
30 POL. AMP LATCH DIP RECEPTACLE
30 POL. AMP LATCH DIP RECEPTACLE
Title
CABLE'S
Size
B
Document Number
REV
1
Date: September 16, 1991
Sheet 2 of 13

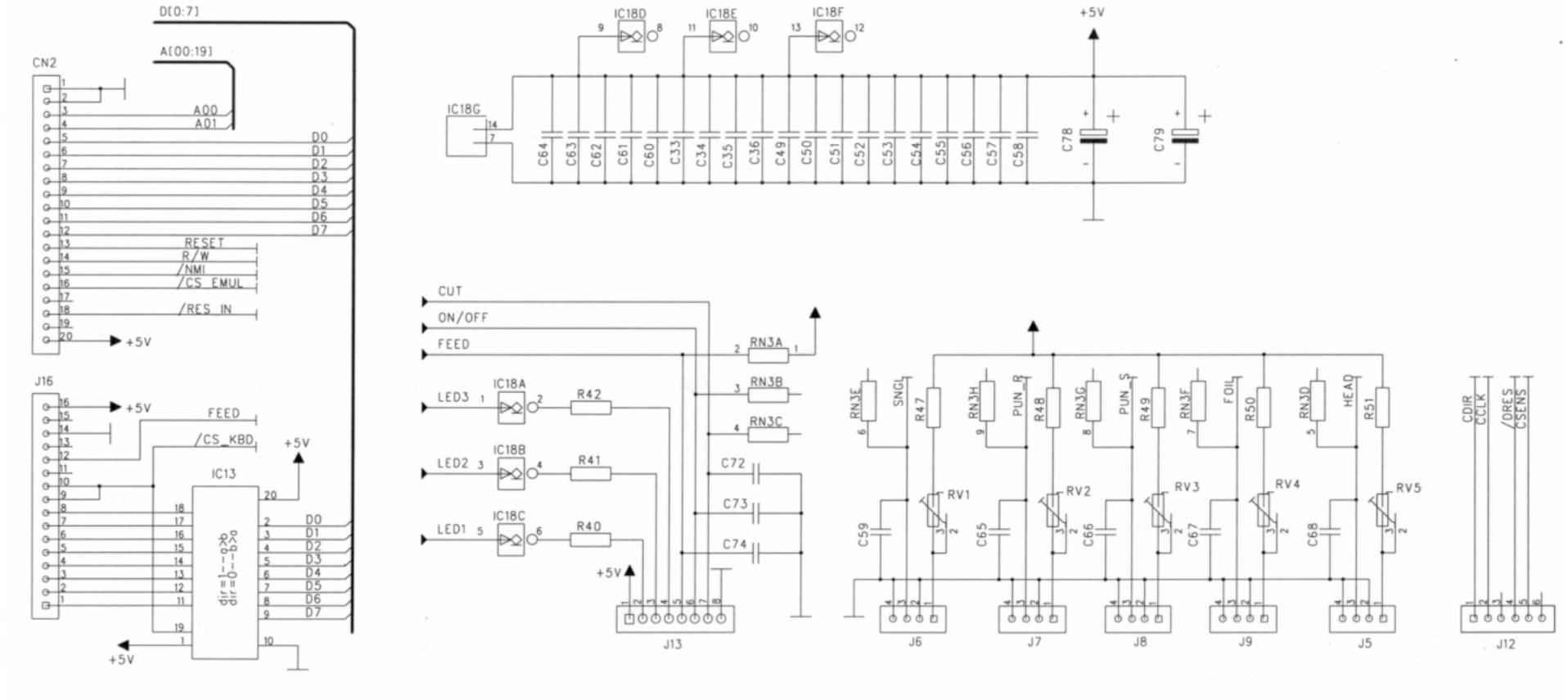
Diagram


+5V
R22
C24
R23
R24
POW ON
V3
IC3
C22
C2
IC4
C23
DIR0A
MA0
MA1
MA2
MA3
DIR0B
MB0
MB1
MB2
MB3
C19
R19
C18
R18
C21
R21
C20
R20
J3
J2-1
V1
L1
IC1
L2
J1-1
J1-2
J1-3
J1-4
ACIN1
ACIN2
F1
ACIN2F
D1
C1
D4
R1
V2
R2
D3
C9
D2
C10
R4
D6
C17
+5V
J2-2
R15
C15
IC2
VTH
J2-3
C11
R7
R9
RV6
R11
P1
R5
R8
R6
R10
C12
C14
R12
C13
R13
R14
R17
C3
C4
C5
C6
C7
C8
R16
R3
D5
C16
J2-4
GNDTH

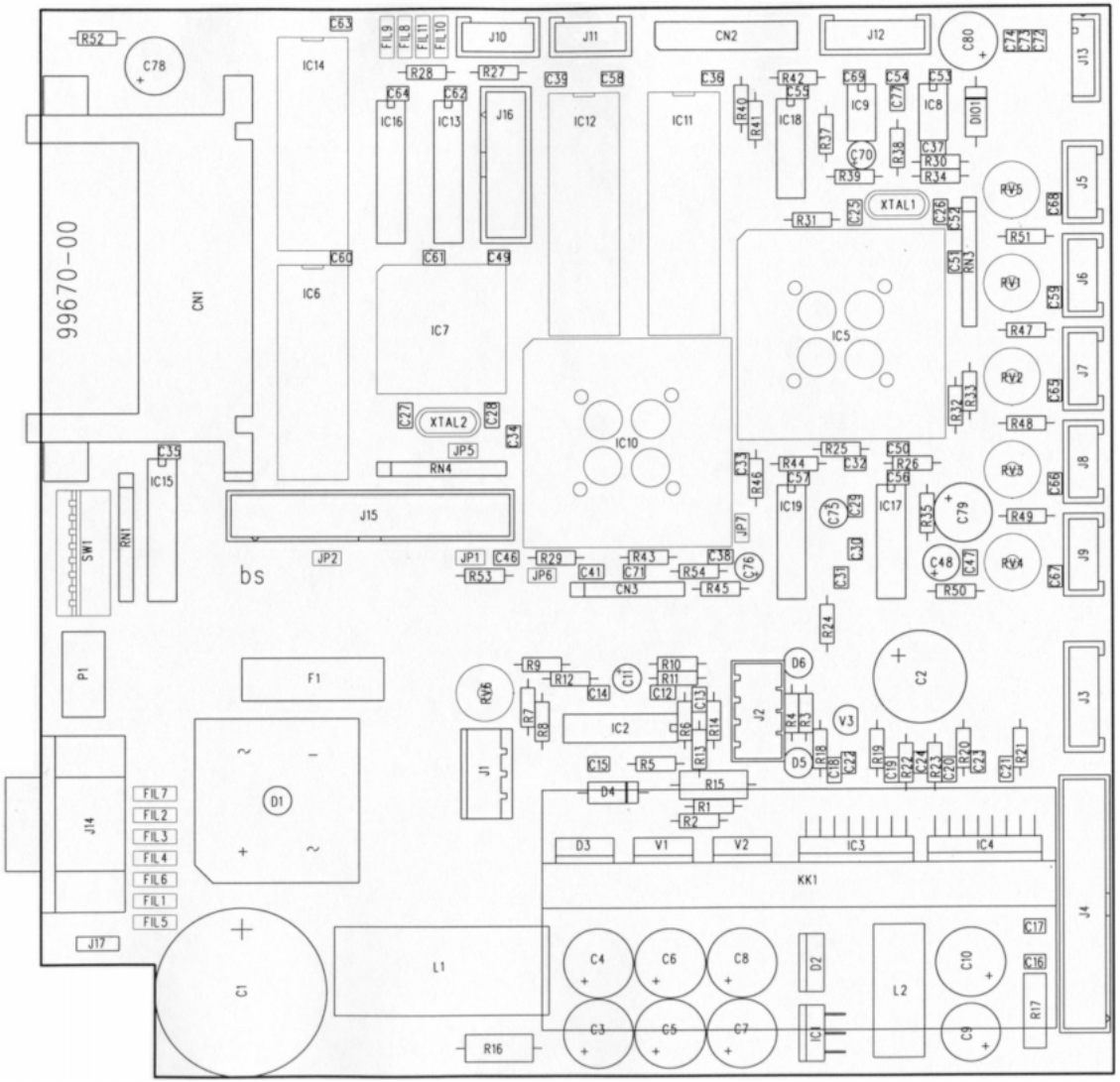

+5V
D101
/RES
IC8
C77
C80
/CS_NOV
SK_2444
HDATA
DO_NOV
IC9
R37
/RES_IN
RESET
/RES
R39
R38
C70
C69
C76
IC19B
R45
FCLK
/DRES
POW_ON
C75
IC19A
R44
DEL_15Q
HSTB
R46
A[00:19]
D[0:7]
IC5
IC12
IC11
IC10
CN1
CN3
JP6
JP7
R/W
/OE_RAM
/CS_RAM
/OE_EPROM
/CS_EPROM
/CS_CARD
/CS_EPROM
/CS_CLOCK
/CS_KBD
/CS_DIPSW
/CS_FC1
/CS_FC2
/CS_HEAD
/REFRQ
/MREQ
/MSTB
/REFRQ
/IOSTB
R31
R32
R33
R34
XTAL1
C26
C25
C71
R43

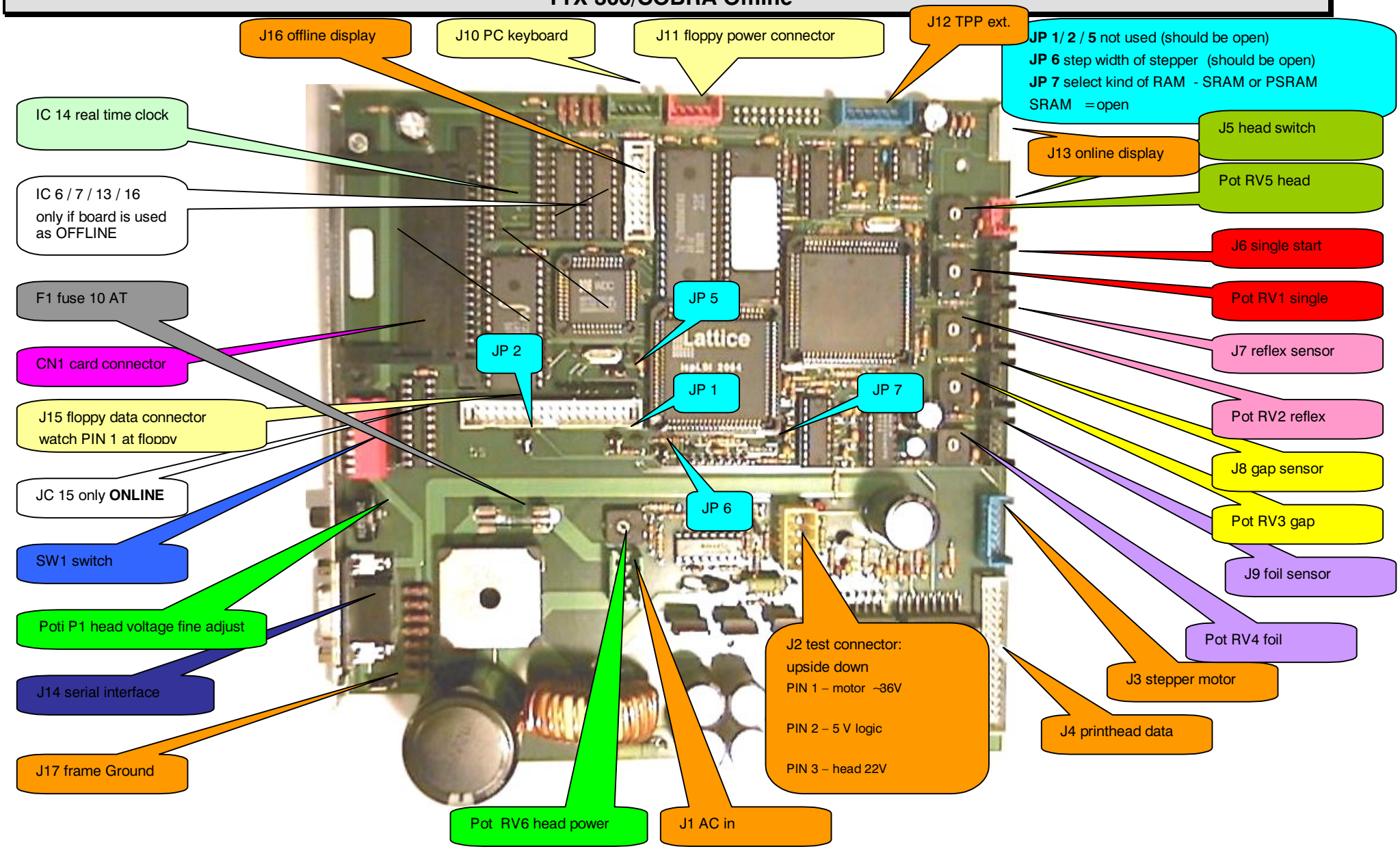

GNDTH
+5V
VTH
J4
R54
R53
R29
R30
HDATA
/HLTCH
HCLK
/OE574_PH
C38
C46
C41
C37
HTHERM
R35
C47
C48
+5V
IC17
C29
C30
C32
C31
R25
R26
FIL1
FIL3
FIL2
FIL4
FIL5
FIL6
FIL7
TXD
RTS
RXD
/CTS
J14
FRAME
+5V
RN1A
RN1B
RN1C
RN1D
RN1E
RN1F
RN1G
RN1H
SW1
IC15
dir=0---b>a
dir=1---a>b
D(0:7)
D7
D6
D5
D4
D3
D2
D1
D0
/CS_DIPSW


+5V
C39
J11
R27
R28
P05
P00
FIL8
FIL9
FIL10
FIL11
J10
R52
FRAME
J17
IC14
/CS_CLOCK
D0
A00
A02
IC16
D[0:7]
FD 245
R/W
FDD[0:7]
IC6
IC7
/FD_RD
/FD_WR
A00
RESET
DMA
/DACK
TC
/NMI
/FD_CS
/FD_DR
/FD_CR
/FF_W
/FF_R
/FF_RES
RN4A
RN4F
RN4D
RN4E
RN4G
RN4B
RN4H
RN4C
J15
JP2
JP1
JP5
XTAL2
C27
C28


D[0:7]
A[00:19]
CN2
A00
A01
D0
D1
D2
D3
D4
D5
D6
D7
RESET
R/W
/NMI
/CS EMUL
/RES IN
+5V
J16
FEED
/CS_KBD
IC13
dir=1-->a
dir=0-->a
IC18D
IC18E
IC18F
IC18G
C64
C63
C62
C61
C60
C33
C34
C35
C36
C49
C50
C51
C52
C53
C54
C55
C56
C57
C58
C78
C79
CUT
ON/OFF
FEED
LED3
LED2
LED1
IC18A
IC18B
IC18C
R42
R41
R40
RN3A
RN3B
RN3C
C72
C73
C74
J13
RN3E
SNGL
R47
RN3H
PUN_R
R48
RN3G
PUN_S
R49
RN3F
FOIL
R50
RN3D
HEAD
R51
RV1
RV2
RV3
RV4
RV5
C59
C65
C66
C67
C68
J6
J7
J8
J9
J5
CDIR
CCLK
/DRES
CSENS
J12

Components


99670-00
CN1
IC14
IC6
IC7
IC16
IC13
J16
IC12
IC11
IC18
IC9
IC8
IC5
IC10
IC15
IC19
IC17
IC2
IC3
IC4
KK1
XTAL1
XTAL2
J10
J11
CN2
J12
J15
CN3
RN4
JP5
JP1
JP2
JP6
JP7
SW1
RN1
RN3
P1
F1
D1
D2
D3
D4
D5
D6
V1
V2
V3
J1
J2
J3
J4
J5
J6
J7
J8
J9
J13
J14
J17
L1
L2
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C78
C79
C80
R52
R16
R17
bs


J16 offline display
J10 PC keyboard
J11 floppy power connector
J12 TPP ext.
JP 1 / 2 / 5 not used (should be open)
JP 6 step width of stepper (should be open)
JP 7 select kind of RAM - SRAM or PSRAM
SRAM =open
IC 14 real time clock
J5 head switch
J13 online display
Pot RV5 head
IC 6 / 7 / 13 / 16
only if board is used
as OFFLINE
J6 single start
F1 fuse 10 AT
JP 5
Pot RV1 single
JP 2
J7 reflex sensor
CN1 card connector
JP 1
JP 7
J15 floppy data connector
watch PIN 1 at floppy
Pot RV2 reflex
J8 gap sensor
JC 15 only ONLINE
JP 6
Pot RV3 gap
J9 foil sensor
SW1 switch
Poti P1 head voltage fine adjust
Pot RV4 foil
J2 test connector:
upside down
PIN 1 – motor ~36V
PIN 2 – 5 V logic
PIN 3 – head 22V
J3 stepper motor
J14 serial interface
J4 printhead data
J17 frame Ground
Pot RV6 head power
J1 AC in

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